iEiMobile®

A Professional Mobile Solution Provider

About IEIMobile

IEIMobile was established as an independent business unit by IEI Technology and the ICP group. We are a professional mobile solution provider seeking to revolutionize the way people work. Our goal is to provide our customers with reliable, affordable and ready-to-use mobile devices by developing mobile industrial products with the most advanced communications and easy-to-use mobile applications.

Our comprehensive product portfolio includes tablet PCs, industrial PDAs and in-vehicle (automotive) computing devices. We serve the needs of a wide range of industries such as retail, logistics, healthcare, construction, manufacturing, transportation and hospitality. By integrating design and innovation technologies with exceptionally-made mobile devices and manufacturing know-how, IEIMobile offers a superior production model for clients requiring design, engineering and Original Design Manufacturing (ODM) services.

At the heart of our designs is a celebration of the true spirit of mobile technology – the idea that businesses should be empowered to operate with greater autonomy, efficiency and imagination. More value-added features can be customized and integrated by using our products as a service-oriented wireless platform. IEIMobile is here to help businesses realize their full potential.

Our Roots, Our History: Industry Insight and Expertise

For the first time in 2004, one out of every six people was connected wirelessly anywhere, anytime, enabling people around the world to expand their personal relations into powerful networks and unparalleled business opportunities. As a leading industrial computer solution provider, IEI Technology recognized this record breaking event as a defining trend towards mobile computing in the industrial sector that will be met with explosive growth as mobile communication in the consumer market reaches maturity.

Instead of evolving and expanding organically in response to new market demands, and being limited by the scope of existing product lines and services, IEI Technology sought to utilize its extensive industry experience and indisputable expertise by creating an independent business unit - IEIMobile.

Being rooted in IEI Technology and the ICP Group, we are blessed with years of industry insight and expertise. Through our ability to identify market opportunities and trends, as well as develop affordable, high quality devices, IEIMobile focuses on creating a valued brand worldwide.

Partner for Growth

To seize opportunities in the fast-growing mobile computing market, IEIMobile, part of IEI Technology and the ICP Group, seeks partners that deliver both a competitive advantage and a bottom-line impact to our clients. We approach collaborative relationships with the same passion and commitment that we invest in our client relationships. Building on a legacy of quality and industry leadership, we offer opportunities for new venture creation as well as professional ODM services to meet individual client needs.

The Internet of Things

By definition, “The Internet of Things” is literally having every “thing” connected in a vast, gigantic network, consisting of three layers: sensor layer, network layer, application layer. The sensor layer consists of hardware devices that have sensing, computing, and communication capabilities, and are used to gather physical parameter data. The network layer acts as a data highway in the Internet of Things, and consist of both wired and wireless networks such as 3G and LTE. The application layer is made up of a wide range of intelligent applications that receive data from the sensor layer and transforms it into useful business intelligence.

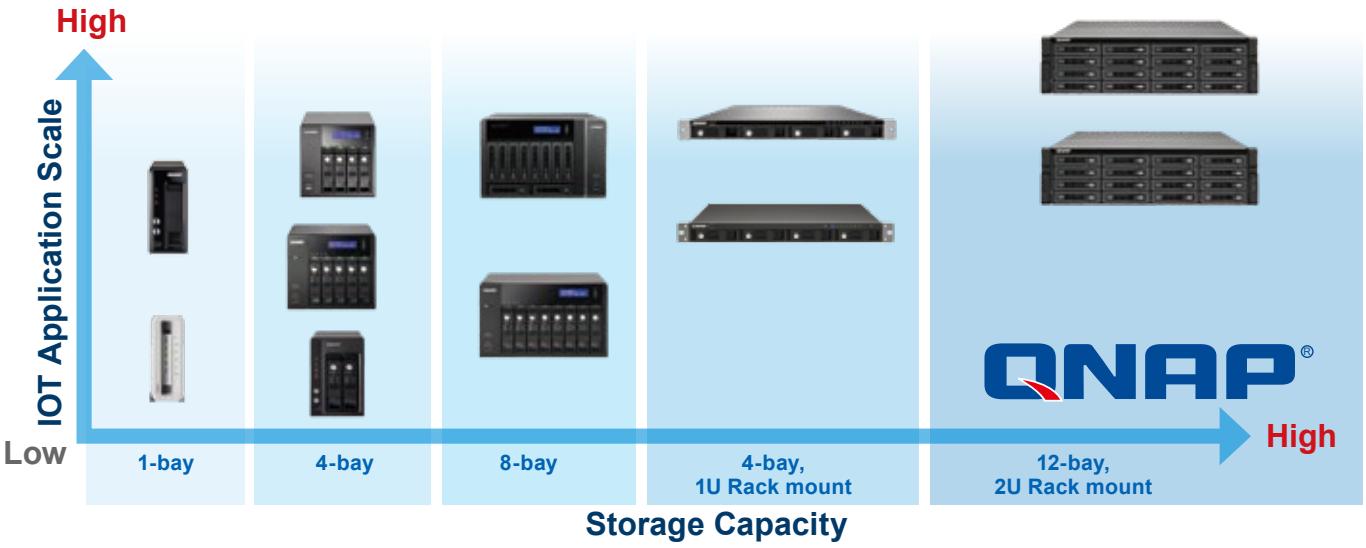
IEIMobile: Sensor Layer Device Provider

IEIMobile plays an important role in the Internet of Things by providing devices integrated with Automatic Identification and Data Capture and wireless functions. On one end, data is collected through readers; and on the other end, collected data is transmitted through wireless to a back-end system. The back-end system normally consists of a storage area in which information can be located for further processing. This is where our sister company, QNAP, plays an important role.

QNAP: Cloud Solution Provider

Founded in 2004, and a spin off from the ICP Group, QNAP Systems, Inc., is a renowned company in the business of Network Attached Storage (NAS) and Network Video Recorder (NVR) market. QNAP integrates technology and design to bring forth quality products that effectively improve business efficiency on file sharing, virtualization applications, storage management and surveillance in the business environment. (Please visit www.qnap.com for more information).

The range of NAS (Network Attached Storage) solutions offered by QNAP plays an extremely important role in the Internet of Things because not only do they serve to store data, but also as a cloud solution that can enhance data sharing and management.



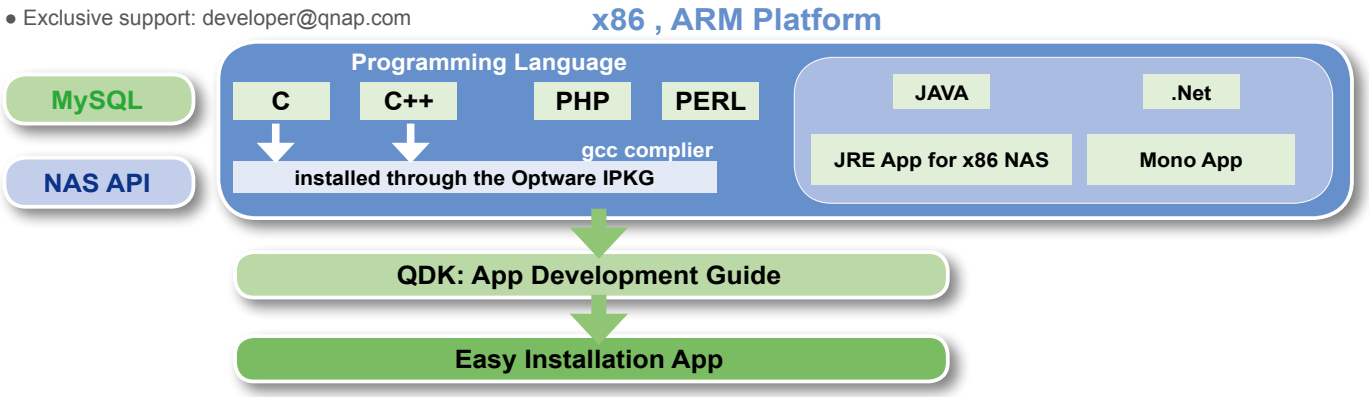
Benefits of QNAP NAS

Unlike traditional storage devices, QNAP NAS supports many valuable software functions like File Server, Backup Server, FTP Server, and remote replication to satisfy the need of small to large scale users. Lots of advanced and complicated functions which could only be done by IT professionals before can now be easily done by web browser. The main benefits are:

- **Simple Activation:**
  File Server, Backup Server, Folder creation and access authority are embedded functions in QNAP’s NAS. There is no need to install other software which is very convenient for non-professional users.
- **Simple Web Management Interface:**
  User management, data sharing authority and other settings can be completed easily through the web browser.
- **Support Remote Data Backup:**
  Data on QNAP NAS can be backed up to a remote QNAP NAS by simple configuration.

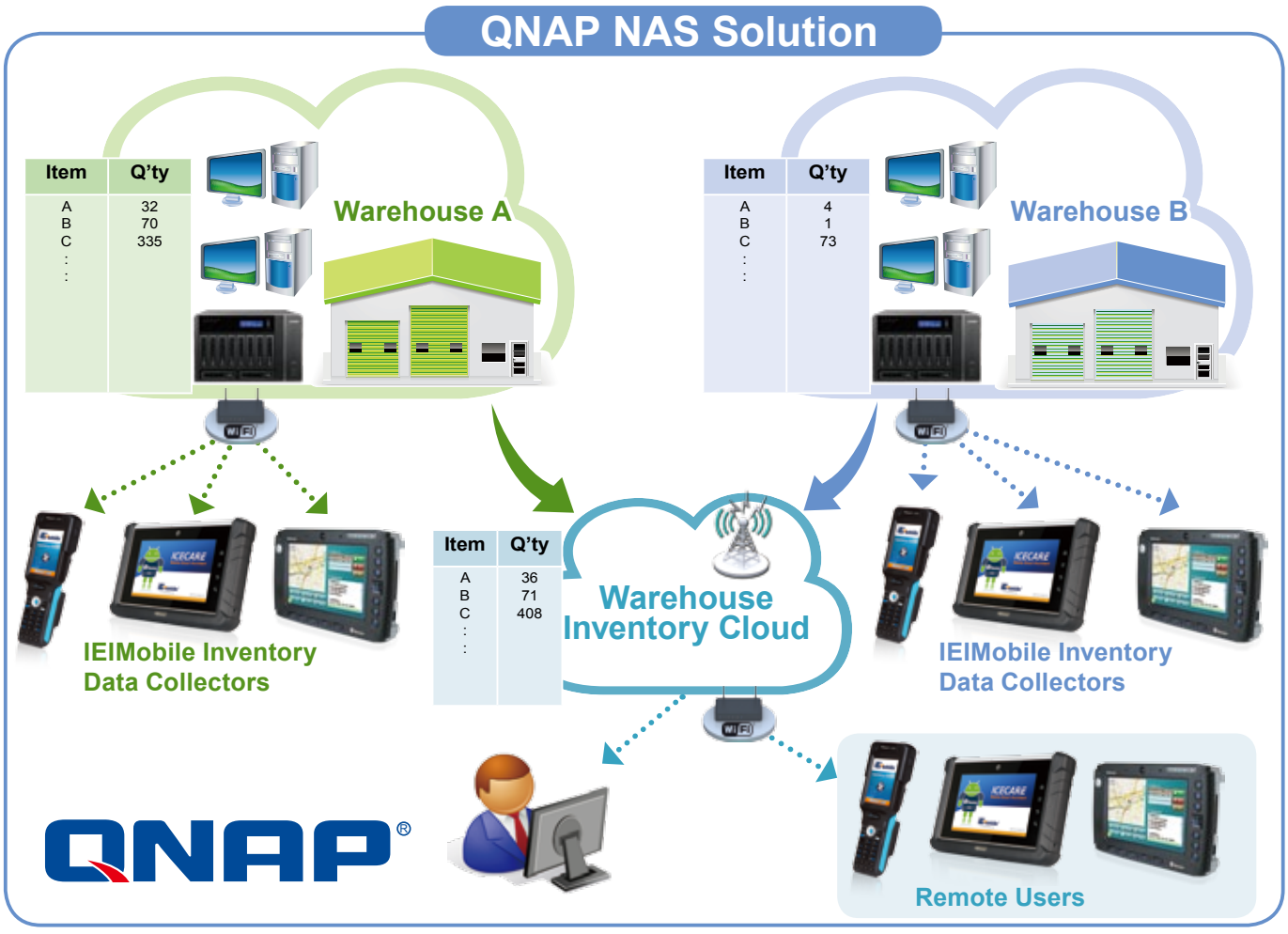
Complete Development Environment Support

- Rich SDK library and documentation
- Exclusive support: developer@qnap.com



Warehouse Management Application Scenario

QNAP NAS systems can serve as different clouds in different applications. For example, in the warehouse management scenario, each warehouse has its own NAS system to store inventory data such as items and quantity. The data for each warehouse can be accessed through mobile devices or computers located in the vicinity of each warehouse, making use of the intranet. In addition, for more large scale applications, data can also be accessed through the internet for remote users located outside the warehouse vicinity.



Explore New Possibilities with IEIMobile and QNAP!

The trend towards mobility and the cloud is becoming increasingly evident, and the idea of the Internet of Things is no longer a dream, but something already present in everyday applications.

In order to meet changing demands in the market, and provide innovative solutions to our customers, IEIMobile and QNAP are offering bundled hardware solutions with software packages which include SDKs and demo APPs. Come and explore new possibilities with us!

x86 and RISC Based Architectures

The x86 Architecture, invented by Intel, is amongst the most commonly used architectures in computers and embedded systems. It is designed to support faster and heavy processing applications. Alongside the x86 architecture, IEIMobile also offers devices based on the RISC architecture. RISC architectures are designed for low power consumption and are highly prevalent in low power devices such as tablet PCs and smartphones . With support for both architectures, IEIMobile is able to offer a wide range of compatible operating systems which can flexibly meet customer requirements and preferences. The table below summarizes IEIMobile's current mix of operating systems under each architecture.

RISC	x86
Windows CE 5.0	Windows XP Embedded
Windows CE 6.0	Windows Embedded Standard 7 P/E
Android 4.1 / 4.2 (Jelly Bean)	
Windows Embedded Handheld 6.5	

Windows Embedded Features:

Windows Embedded extends the power of consumer-based Windows to enterprise applications. The Windows Embedded series operating system provides a platform to develop powerful, reliable, innovative and intelligent devices. Its main features are:

- Small footprint size decreases system loading
- Highly customizable modules to flexibly suit different application requirements
- Very stable and highly reliable
- Extensive support

Android Features:

Android is a Linux-based operating system specifically designed for mobile devices such as handhelds and tablet PCs. This open-source platform is known for its user-friendly interface and the online APP market – Google Play. Main features include:

- Android is free and decreases cost of adoption
- Open source platform cultivates newer ideas and designs
- Open for customization enhances application flexibility
- Huge ecosystem increases support

Mobile Device Management (MDM)

As mobile devices become ubiquitous and as applications flood the market, monitoring of mobile devices for enterprises is growing in importance by the day. With Mobile Device Management (MDM), enterprises are able to secure, monitor, manage, and support mobile devices at work including tablet PCs, PDAs, and notebooks. IEIMobile, a partner of SAP since 2013, is working on providing cutting-edge MDM solutions to the industry. With our new generation products, users will be able to manage their devices easily with the help of Afaria.

Not safe for the enterprise!

Lacking enterprise controls:

- ✗ No security
- ✗ No app management
- ✗ No enterprise app portal
- ✗ No certificates

SAP MDM

Safe for the enterprise!

Enterprise control:

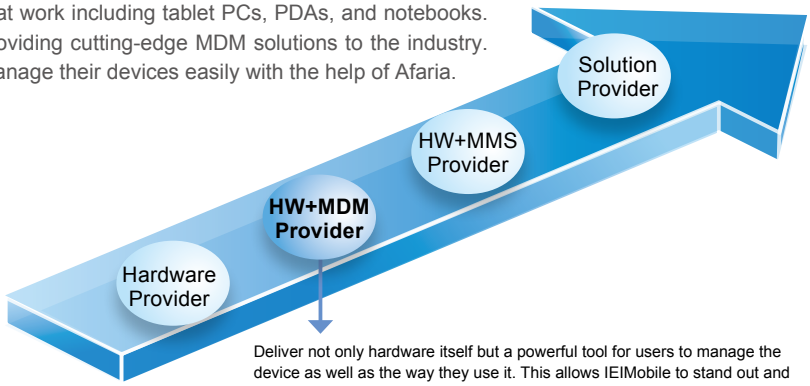
- ✓ Power-on-password
- ✓ Enterprise App Portal fully configured
- ✓ Certificates for SSO, WIFI, VPN, and Email are deployed
- ✓ Apps enabled for not touch configuration
- ✓ Policies are automatically deployed

The Mobile Device Management solution includes many general features but also includes additional functionality that addresses unique needs of mobile devices such as smartphones, industrial-grade tablet PCs, and PDAs. Key features include:

- Device provisioning and managing configuration settings
- Inventory or asset management
- Software distribution including applications, OS, firmware updates
- Remote wipe or lock, and remote control for system diagnostics
- Authentication and certificate management
- Reporting and analytics on devices

IEIMobile: Not Just a Hardware Provider

As mobile devices become ubiquitous and as applications flood the market, monitoring of mobile devices for enterprises is growing in importance by the day. With Mobile Device Management (MDM), enterprises are able to secure, monitor, manage, and support mobile devices at work including tablet PCs, PDAs, and notebooks. IEIMobile, a partner of SAP since 2013, is working on providing cutting-edge MDM solutions to the industry. With our new generation products, users will be able to manage their devices easily with the help of Afaria.



Deliver not only hardware itself but a powerful tool for users to manage the device as well as the way they use it. This allows IEIMobile to stand out and differentiate itself amongst other competitors in the industry.

Mobile Wireless Technologies

Wireless technologies play an important role in the current era, taking into consideration the trend towards the Internet of Things (IOT). IEIMobile products make use of both Wi-Fi and mobile broadband solutions.

Wi-Fi

Commonly known by its trademark name “Wi-Fi”, the range of products using the IEEE 802.11 family of standards allows electronic devices to exchange data wirelessly over a computer network. Industrial applications require greater energy efficiency and undisrupted Wi-Fi connection to ensure optimal business operation. To meet these requirements, IEIMobile’s Wi-Fi enabled devices provides the following:

- Power saving mode while the device is on suspend and Wi-Fi communication is in idle.
- Auto connection to exiting wireless LAN.
- Seamless wireless roaming and auto-switching.

Mobile Broadband

Since 2003, cellular providers have been rolling out 3G networks with improved data download and upload speeds. With the rapid evolution of wireless technology, the 4th Generation (4G) wireless network was first introduced in 2010 and is expected to be the successor of the previous 2G and 3G networks. Currently the Long Term Evolution (LTE) is the 4G network being deployed worldwide.

3G lte	Data Rate	
	3G	4G
High Mobility Communication (moving vehicle)	384 kbit/s	100 Mbit/s
Low Mobility Communication (walking / stationary)	2Mbit/s	1 Gbit/s

Automatic Identification and Data Capture (AIDC) Technologies

Almost all fields of business today use 1D/2D barcode and RFID to identify and track commodities, allowing for a more automated business process that reduces human error and increases productivity. Equipped cutting edge technologies, IEIMobile’s extensive product portfolio offers solutions across a broad range of application areas such as warehouse management, healthcare, retail, and material handling.

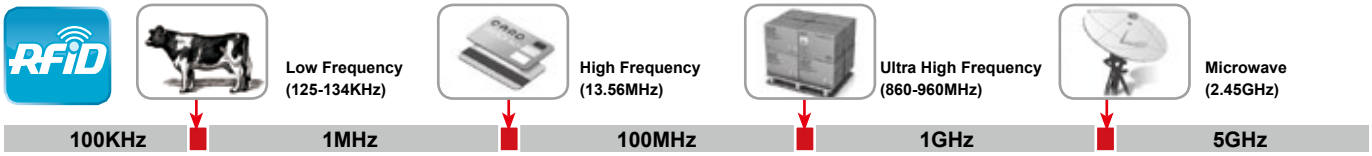
Intermec
Honeywell
Symbol

	1D	2D
Symbology	EAN/UPC, RSS, Code 39, Code 128, UCC/EAN 128, ISBN, ISBT, Interleaved, Matrix, Industrial and Standard 2 of 5, Codabar, Code 93/93i, Code 11, MSI, Plessey, Telepen, postal codes	Data Matrix, PDF417, Micro PDF 417, Maxicode, QR, Aztec, EAN.UCC composite

RFID

Radio Frequency Identfication (RFID) is an automatic identification system that uses radio waves to transmit and recieve data. Information is sent to and read from RFID tags by a RFID reader. IEIMobile supports the following standards:

- High Frequency (HF; 13.56 MHz): ISO14443A/B (Mifare/Felica), NFC, and ISO15693 standards.
- Ultra High Frequency (UHF; 860 MHz - 960 MHz): ISO 18000-6C and EPC Class I Gen II.



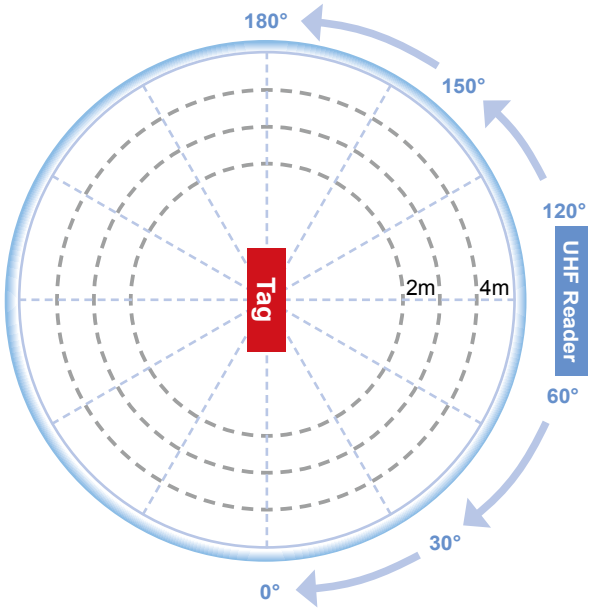
UHF RFID Reader

Dedicated to AIDC technologies, IEIMobile now offers a range of products with the UHF RFID reader solution. In order to ensure the quality performance of our UHF RFID readers, a series of tests were performed during the Design Quality Validation stage of product development.

		MODAT-335	ICECARE-05	AVL-2000	AVL-3000
Characteristics	Frequency (MHz)	840 ~ 960	840 ~ 960	840 ~ 960	840 ~ 960
	Power Output (dBm)	1	0.5	0.8	1
	Antenna (Circular/Linear)	Linear	Circular	Circular	Circular
	Tag Support	EPC C1 Gen2 / ISO 18000-6C, ISO 18000-6B			
Test Items	Reading Distance (m)	5	>1	3.5	>12
	Reading Speed (tags/sec)	30	10	7	14

• Reading Distance Test:

In the reading distance test, a tag is located at the center of the room while the UHF RFID reader is located at different distances and angles from the tag. The tag is read at different distances until it cannot be detected anymore.



• Reading Speed Test:

In the reading speed test, the UHF RFID device is placed in front of a wall (4m x 2m) covered with UHF RFID tags that are located in both horizontal and vertical directions. The number of tags read under 1 minute is recorded to calculate the overall reading speed.

Our Dedicated Product Lines

Tablet PC

ICE Series -
Your cutting-edge digital assistant

With a focus on ergonomic design and features, the ICE series tablet PC offers versatility in application and field-proven durability.

The ICE Series tablet PC features exceptional ergonomics, industrial sealing and high drop resistance for withstanding the most extreme industry-specific environment. Our obsessive attention to detail and passion for quality create a winning formula that promises to delight and inspire your staff on-the-go. It is the ultimate productivity tool for field services.

Industrial PDA (EDA)

MODAT Series -
Your data manager on the go

The Modat series industrial PDA (EDA) brings real-time mobile computing and cost-effective mobility in one customizable, robust package.

The next generation of industrial PDA (EDA), the Modat Series, provides a total wireless solution with Windows® Embedded Handheld or Android operating system. The Modat Series industrial PDA features a full range of wireless communication options and optimal suites of data capture technologies in one lightweight, versatile and robust package. It is specially suited to solutions in the retail, hospitality and logistics environment.

Automotive PC

Automotive PC Series -
Your reliable companion on the road

Raising the bar for premier in-vehicle infotainment systems, the automotive PC series optimizes user comfort and the power of sophisticated navigation technologies for your mobile work fleet.

The automotive PC series is a CAN-bus integrated mobile computing device that promises to answer all your field force automation needs. Empowered by the latest and most advanced navigation technologies available, your fleet operation is secured and optimized at minimal cost.

RISC Based PC

IOVU Series -
Your smart daily task manager

The IOVU RISC Based PC Series enables the great embedded flexibility for smart living and building automation applications.

Making use of the low power consumption RISC platform, the IOVU series adopts a fan-less and power efficient design, providing a cost-effective, stable, and easy to use solution to collect, transfer, process, access , and manage data.

iEiMobile®

Tablet PC

Efficient Power Management

Power management is an extremely important topic when it comes to handheld devices because they are often operated for hours without a power source to recharge. Power management for each of IEIMobile handheld devices are carefully designed in order to meet customer's demand for extended operating hours.

Hot Swap Design

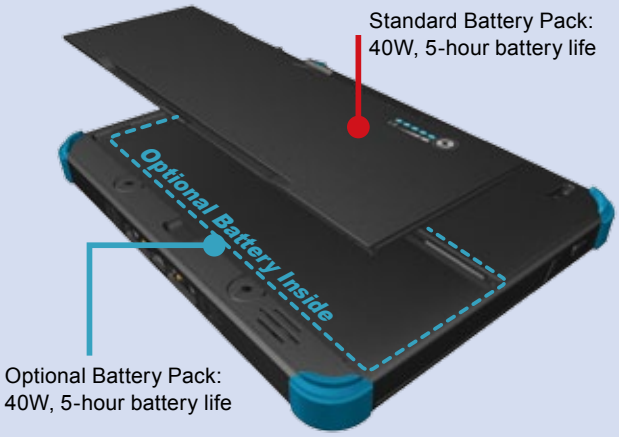
- When power is running low, the batteries can be replaced with fully charged ones without shutting down the system and software applications.
- With an additional battery pack, the device can operate for hours to ensure non-stop customer service.

External Hot Swap

Devices utilizing the external hot swap design come with two battery packs. Each battery pack can be accessed externally and replaced easily through the releasing and locking the battery.

Internal Hot Swap

In the internal hot swap design, the device comes with two battery packs. One battery pack is secured inside the device and cannot be accessed externally, whilst the second battery pack can be released and replaced by the user.



High Density Battery

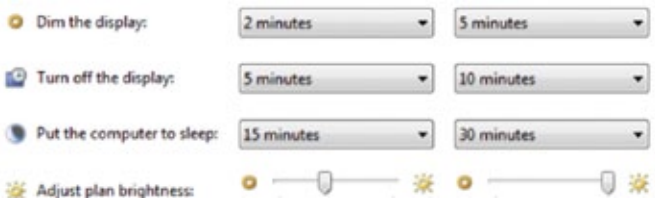
Another useful method for increasing device operation time is to provide a higher density battery pack. IEIMobile offers high density battery packs as optional features for specified products.

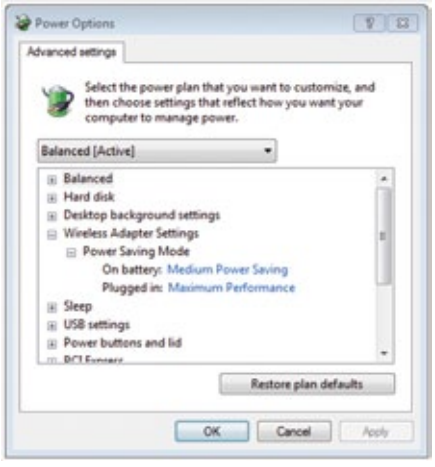
Battery Pack

Battery Pack-Large

Power Saving Software

IEIMobile devices are designed to switch to the most efficient power mode when devices are left idle for some time. In addition to this, operating systems such as Windows Microsoft also offer users a way to adjust to the power saving mode manually.





Durability

IEIMobile offers a wide range of products targeted at different vertical market applications ranging from warehouse management, retail, hospitality, healthcare, and logistics management. Due to this diverse range of applications, IEIMobile offers products with different levels of ruggedness. The ability of a device to withstand operation environments are measured along three variables: IP level rating, drop survival, and operating temperatures.

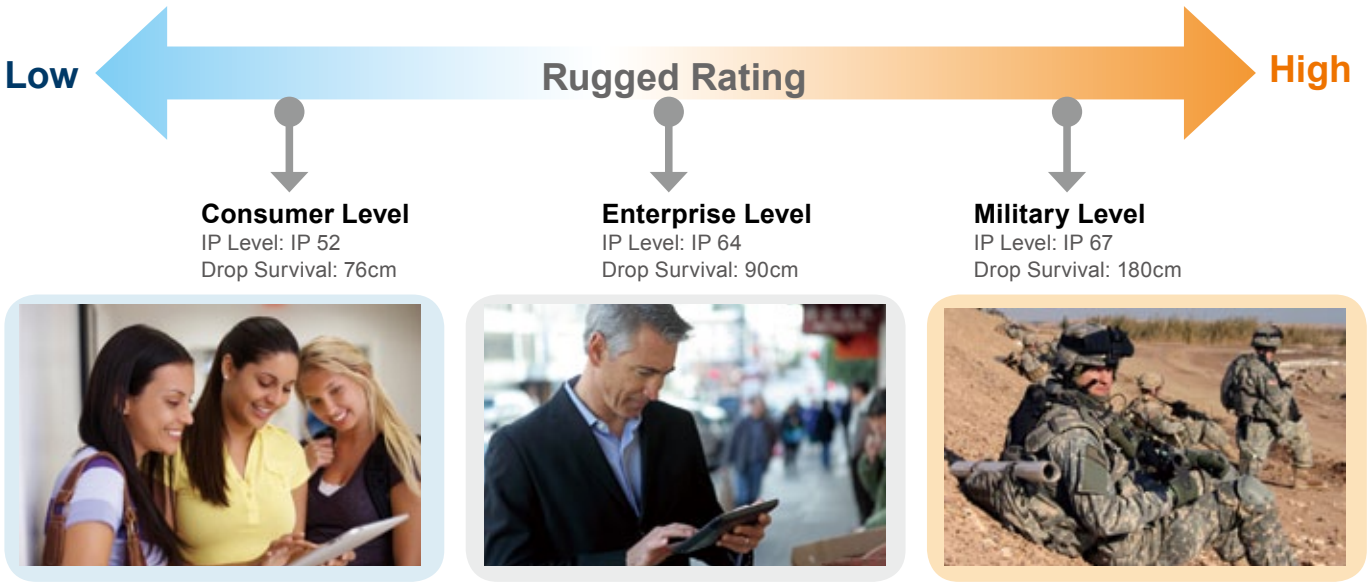
IP Level Rating

The IP rating system is a classification system describing the sealing characteristics of electrical equipment. It consists of two digits, for example IPxx:

- First digit: Indicates the degree of protection against solid foreign objects from entering the electrical device
- Second digit: Indicates the degree of protection against the ingress of various forms of moisture, such as drip, spray, and submersion.

1st Digit	Description
0	Not protected
1	Protected against solid foreign objects of 50mm diameter and greater
2	Protected against solid foreign objects of 12.5mm diameter and greater
3	Protected against solid foreign objects of 2.5mm diameter and greater
4	Protected against solid foreign objects of 1.0mm diameter and greater
5	Protected from the amount of dust that would interfere with normal operation
6	Dust tight

2nd Digit	Description
0	Not protected
1	Protected against vertically falling water drops
2	Protected against vertically falling water drops when enclosure is tilted up to 15°
3	Protected against water sprayed at an angle up to 60° on either side of the vertical
4	Protected against water splashed against the component from any direction
5	Protected against water projected in jets from any direction
6	Protected against water projected in powerful jets from any direction
7	Protected against temporary immersion in water

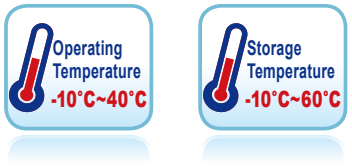


Drop Survival

The average mobile device can only withstand drops from a height of 70cm . However, in order to meet tougher work environments, IEIMobile handheld products are designed to survive drops from 90cm to 150 cm.

Operating and Storage Temperature

IEIMobile products are designed with a wide and flexible operating and storage temperature range.



Tablet PC

New

Model		ICEFIRE	ICEFIRE 2	ICEROCK	ICEROCK3
Display	LCD Size	10.4" TFT LCD	10.4" TFT LCD	8.0" TFT LCD	10.1 TFT LCD
	Brightness (cd/m²)	350 cd/m²	350 cd/m²	350 cd/m²	350 cd/m²
	Max. Resolution	1024 x 768 pixels XGA	1024 x 768 pixels XGA	800 x 600 pixels SVGA	1280 x 800
	Viewing Angle	88/88/88/88 Deg.	88/88/88/88 Deg.	70/70/60/70 Deg.	85/85/85/85 Deg.
	Touch Screen	Resistive Supports Multi-touch and Gesture	Resistive Supports Multi-touch and Gesture	5-wire Resistive Type Touch	Capacitive Touch
	Digitizer	2048 levels @ full scale Pressure Resolution	2048 levels @ full scale Pressure Resolution	N/A	N/A
System	CPU	Intel® Atom™ D525 1.8GHz	Intel® Atom™ N2800 1.86GHz	Intel® Atom™ Z530 1.6GHZ	Intel® Atom™ N2800 1.86GHz
	Chipset	Intel® ICH8M	Intel® NM10	Intel® SCH US15WP	Intel® NM10
	Operating System	Microsoft® Windows Embedded Standard 7 P(WS7P)	Microsoft® Windows Embedded Standard 7 P(WS7P)	Microsoft® Windows XP Embedded	Windows® Embedded® Standard 7 P (WS7P)
	Memory	2GB 1333MHz DDR3 SDRAM	4GB 1333MHz DDR3	2GB DDR2 on board	4 GB DDR3 on board
	Storage	1.8" 32G SSD	mSATA 8G SLC	CompactFlash® slot SD card slot	8GB mSATA
Communication	Wireless LAN	Wi-Fi 802.11a/b/g/n	Wi-Fi 802.11b/g/n	Wi-Fi 802.11b/g/n	Wi-Fi 802.11b/g/n
	Bluetooth	Bluetooth V2.1 + EDR (Class II)	Bluetooth V3.0 + EDR (Class II)	Bluetooth V3.0 + HS (Class II)	Bluetooth V3.0
	Modem	WCDMA/HSUPA (option)	WCDMA/HSUPA (option)	WCDMA/HSUPA (option)	UMTS/HSUPA (Option)
	GPS	N/A	Option	N/A	Option
Data Collection	Camera	3-megapixel and LED light	1.3-megapixel CMOS camera (front) / 3-megapixel camera (rear)	1.3-megapixel	1.3 megapixels CMOS Camera (Front) / 5 megapixels CMOS camera (Rear)
	Light Sensor	N/A	N/A	Ambient Light Sensor	N/A
	Barcode	1D Laser/2D Imager Scan Engine	1D Laser/2D Imager Scan Engine	1D Laser/2D Imager Scan Engine	1D Laser/2D Imager Scan Engine
	RFID	13.56 MHz RFID support ISO 14443A (Mifare) ISO 15693	13.56 MHz RFID support ISO 14443A (Mifare) ISO 15693	13.56 MHz RFID support ISO 14443A (Mifare) ISO 15693	13.56 MHz RFID support ISO 14443A (Mifare) ISO 14443B (Felica)
Indicators & Buttons	LED Indicators	Power/ Wi-Fi/Bluetooth/ RFID/ Battery Status LED	Power/ Wi-Fi/Bluetooth/ RFID/ Battery Status LED	Power/ Wi-Fi/Bluetooth/HDD/ 3.75G Status LED	Battery charging/peripheral device/ storage/ wireless device
	Hot Keys	5-way navigation key Barcode Scanner/ RFID / LED Torch/ Camera/ Wi-Fi/ Bluetooth/ SAS/Function Key	5-way navigation key Barcode Scanner/ RFID / LED Torch/ Camera/ Wi-Fi/ Bluetooth/ SAS/Function Key	5-way navigation key 8 x Programmable function keys	Power button / Hot keys / IEI Menu
I/O Interface	USB	1 x USB 2.0 Full Speed	1 x USB 3.0	2 x USB 2.0 Full Speed 1 x Mini USB	3 x USB3.0
	Micro HDMI	N/A	N/A	N/A	1 x Micro HDMI
	LAN	1 x 10M/100M LAN	1 x 10M/100M/1G LAN	1 x 10M/100M/1G LAN	1 x 10/100M/1G LAN
	Audio	1 x 2W Speaker	1 x 2W Speaker	2 x 1.5W Speaker	1 x 1.5W Speaker
		1 x Mic in	N/A	1 X Mic 1 X Headphone	1 x Mic in 1 x Headphone
	Expansion	1 x LED Torch	1 x LED Torch	N/A	N/A
Power	Power Adapter	12V @ 5A @ 60W	12V @ 5A @ 60W	12V @ 3A @ 36W	19V @ 3A @ 57W
	Docking Power Adapter	19V@ 4.74A @ 90W	19V@ 4.74A @ 90W	N/A	N/A
	Battery	Dual 11.1V 1880mAh Li-ion Battery	Dual 11.1V 1880mAh Li-ion Battery	7.4V 2400 mAh Li-ion Battery	Dual 11.1V 3700mAh Li-ion Battery
Environment	Operating Temperature	0˚C ~ 40˚C	0˚C ~ 40˚C	0˚C ~ 40˚C	0˚C ~ 40˚C
	Storage Temperature	-10˚C ~ 60˚C	-10˚C ~ 60˚C	-20˚C ~ 60˚C	-20˚C ~ 60˚C
	Humidity	5%~95% non-condensing	5%~95% non-condensing	5%~95% non-condensing	5%~95% non-condensing
	Drop Survival	90 cm	90 cm	1.0 M	1.2 M
	Environment Protection	IP 64 compliant front panel	IP 64 compliant front panel	IP 62 compliant front panel	IP 54
	Certifications	CE/FCC, Medical-grade Class B	CE/FCC	CE/FCC	CE / FCC
Physical Characteristics	Dimensions (LxWxH) (mm)	270 x 265 x 29	270 x 265 x 29	255 x 180 x 37	297 x 234 x 32
	Weight	1.7 kg	1.7 kg	1.1 kg	1.9 kg

Tablet PC

Model		ICECARE-05	ICECARE-07	ICECARE-10W	ICELOG
Display	LCD Size	5" TFT LCD	7" TFT LCD	10.1" TFT LCD	7" TFT LCD
	Brightness(cd/m²)	350 cd/m²	500 cd/m²	250 cd/m²	250 cd/m²
	Max Resolution	800 x 480	800 x 480	1280 x 800	1024 x 600
	Viewing Angle	70/70/50/70 Deg.	60/70/70/70 Deg.	75/75/75/70 Deg.	75/75/75/75 Deg.
	Touch Screen	Projected Capacitive Touch	Projected Capacitive Touch	Resistive Touch	Projected Capacitive Touch
	Digitizer	N/A	N/A	N/A	N/A
System	CPU	TI Sitara™ AM3715 1GHz	TI Sitara™ AM3715 1GHz	Intel® Atom™ N2800 1.86GHz	Freescale™ i.MX6 Cortex™-A9
	Chipset	N/A	N/A	Intel® NM10	N/A
	Operating System	Android 4.1.2	Android 4.1.2	Microsoft® Windows® Embedded Standard 7 P (WS7P)	Android 4.2
	Memory	4GB eMMC Flash + 512MB SDRAM	4GB eMMC Flash + 512MB SDRAM	4 GB DDR3 on board	DDR3 1GHz
	Storage	Micro SD card slot	SD Slot	32GB mSATA	iNAND
	Wi-Fi	Wi-Fi 802.11a/b/g/n	Wi-Fi 802.11b/g/n	Wi-Fi 802.11b/g/n	Wi-Fi 802.11a/b/g/n
	Bluetooth	Bluetooth 4.0	Bluetooth 4.0	Bluetooth V3.0	Bluetooth 4.0
	Modem	N/A	WCDMA/HSDPA	N/A	WCDMA/HSDPA (Option)
	GPS	N/A	Option	N/A	Option
Data Collection	Camera	5-megapixel CMOS camera	2-megapixel CMOS camera (front)/ 5 megapixels CMOS camera (rear)	N/A	5-megapixel with flash
	Barcode	N/A	1D Laser/2D Imager Scan Engine	1D Laser/2D Imager Scan Engine	N/A
	RFID	13.56MHz RFID reader (optional) UHF RFID reader (optional)	13.56 MHz RFID support ISO 14443A (Mifare) ISO 18092 (Felica) ISO 15693 NFC	13.56 MHz RFID support ISO 14443A (Mifare) ISO 14443B (Felica)	13.56 MHz RFID support ISO 14443A (Mifare) ISO 14443B (Felica) ISO 15693 NFC
Indicator & Buttons	LED Indicator	Power on LED (Blue) Charging LED (Orange)	Power On LED (Blue) BT enable / disable LED (Blue) Wi-Fi enable / disable LED (Green) 3.5G enable / disable LED (Green)	Battery Charging/Peripheral Device/ Storage/Wireless	N/A
	Hot Keys	Power On / Off Switch / 4 x Function Key	Power on/off switch Reset key 4 x Function keys (Home / Menu / Back / Search)	Power button / IEI Menu	Volume Up/Down / Power on/ off
I/O Interface	USB	1 x Micro USB Client	2 x USB 2.0	2 x USB 2.0	1 x Micro USB Client
	Micro HDMI	N/A	N/A	1 x Micro HDMI	N/A
	Audio	1 x 0.5W Speaker	1 x 1.5W Speaker	1 x 1.5W Speaker	2 x 1W Speaker
		N/A	1 x Digital Mic	1 x Audio/Mic-in	1 x Headphone
	Expansion	N/A	N/A	1 x Smart Card Reader 1 x Magnetic Stripe Reader	N/A
Power	Power Adapter	5V @ 2.1A @ 10.2W	19V @ 2.1A @ 40W	19V @ 2.1A @ 40W	5V @ 2A @ 10W
	Battery	3.7V 3600mAh	Dual 11.1V 1880mAh Li-ion Battery	7.4V 7400mAh	3.7V 7400mAh
Environment	Operating Temperature	-10˚C ~ 50˚C	-10˚C ~ 40˚C	-10˚C ~ 40˚C	-10˚C ~ 40˚C
	Storage Temperature	-20˚C ~ 60˚C	-10˚C ~ 60˚C	-20˚C ~ 60˚C	-20˚C ~ 60˚C
	Humidity	5%~95% non-condensing	5%~95% non-condensing	5%~95% non-condensing	5%~95% non-condensing
	Drop Survival	1.2 M	1.2 M	90 cm	0.9 M
	Environment Protection	IP 64	IP 64 compliant front panel	IP 54 compliant front panel	IP 54 compliant front panel
	Certification	CE / FCC	CE / FCC	CE / FCC	CE / FCC
Physical Characteristics	Dimension (LxWxH) (mm)	139 x 99.3 x 22.8	248 x 153 x 36	290 x 207 x 22.5	205 x 133 x 19
	Weight	0.29 kg	1.1 kg	1.1 kg	0.56 kg

ICEFIRE

10.4” Mobile Clinic Assistant

- 10.4” TFT XGA LCD
- Intel® Atom™ D525 dual core platform
- Powered by Windows ® Embedded Standard 7 P
- Dual-mode input (Digitizer + Multi-Resistive Touch)
- Dual hot swappable battery
- 1D/2D barcode reader, RFID reader, smart card reader and fingerprint reader
- Bluetooth, Wi-Fi, 3.75G wireless

TAIWAN EXCELLENCE 2012

3.75G/HSUPA | Bluetooth | Wi-Fi | RFID | Camera

Touchscreen | Digitizer Screen | Fanless | 1D Barcode Scanner | 2D Barcode Scanner | Fingerprint Reader | SCR | Intelligent Systems Alliance | F3 One Key Recovery

Mobile Clinic Assistant Applications

Retrieve patient data at bedside for optimal point-of-care treatment.

Instant access to patient medical history for real-time diagnosis.

Accurately capture and record patient symptoms during an emergency.

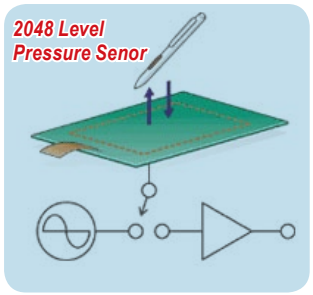
Increase productivity and decrease opportunities for error through documentation directly at point-of-care.

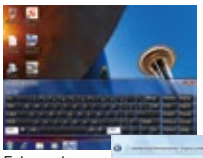
Dual-Mode Input

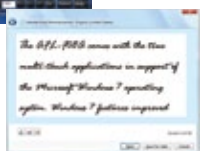
Along with Windows® 7 digitizer support and dual-mode input support, the ICEFIRE features both WACOM digitizer and traditional resistive touch input with auto-sensing and auto-switching. When a digitizer pen moves close to the screen of the ICEFIRE, the digitizer automatically takes effect and switches off resistive touch input mode.

The digitizer is a more accurate and sensitive input method that can detect stylus pressure, speed, and angle. This feature is suitable for a clinician to note patient's vital signs. Another key benefit of the digitizer is to prevent mis-touch. A clinician can use the digitizer pen to write accurate prescriptions without the worry of input errors. The working principles of the EMR® digitizer are as follows:

- The tablet surface incorporates a sensor board that detects the pen's movement.
- Weak energy is induced in the pen's resonant circuit by a magnetic field generated by the sensor board surface.
- The pen's resonant circuit then makes use of this energy to return a magnetic signal to the sensor board surface.




Enhanced on-screen keyboard


Hand-writing recognition

Dual input modes combined with acceleration keys make computing flexible and convenient for healthcare staff working in many different applications.

Digitizer Mode

Resistive Touch Mode

The ICEFIRE also provides Windows® 7 featured multi-touch, gesture, and hand-writing recognition.

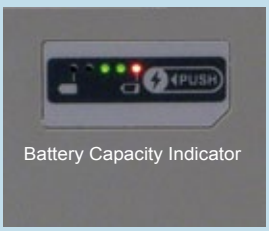
Multi-Touch Support

Dual Battery Pack

Each battery pack, with medical-grade certifications, provides 11.1 V 1880 mAh capacity and supports a hot swappable function. When one battery is removed, the system automatically switches power consumption to the other battery. With an additional battery pack and the hot swappable feature, the ICEFIRE ensures non-stop point-of-care, 24 hours a day, every day.

Each battery pack has capacity indicators. Besides these visual indicators, operating systems like Windows® 7 will also display information of available batteries and capacity on the desktop.

The ICEFIRE consumes the battery with lower power capacity first. When charging, the ICEFIRE charges the battery with higher power capacity first then the other.



Battery Capacity Indicator

Security and Access Control

Combined with Windows® 7 Embedded security management feature, the built-in fingerprint reader allows hospitals to control access priorities.

The optional USB interface smart card reader supports identity verification and makes the ICEFIRE an ideal access control device for transaction-based medical cloud-computing systems.

Optional Smart Card Reader (SCR)

Fingerprint Reader

Ergonomic Design

IP64 Compliant and Easy-to-Clean Plastic Housing

Ergonomic Handlebar and Hinge Stand

Handle design for easy carry

Ergonomic Grip Handle

Desk-mount stand for ease of use

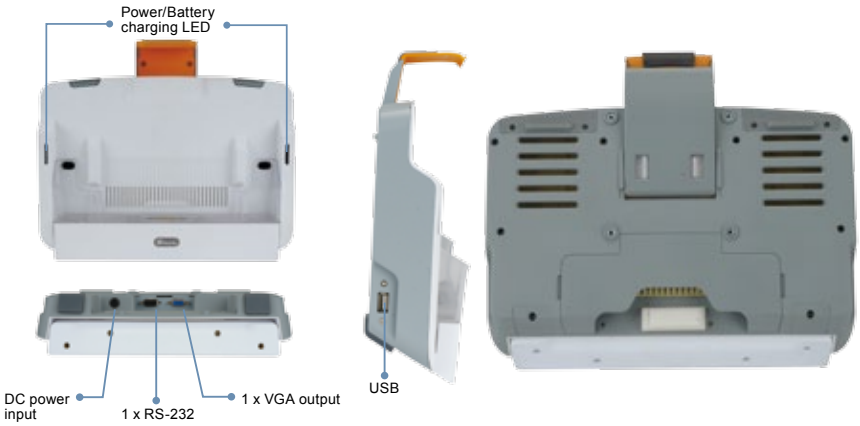
Medical-grade Certification Approved

EN 60601-1
EN 60950

Antibacterial Housing

Slim and Lightweight Design

Flexible Installation Design



The ICEFIRE Docking Station (ICEFIRE-DS) provides power to one docked ICEFIRE and two plug-in battery packs simultaneously.

WOW (Workstation on Wheels) Installation

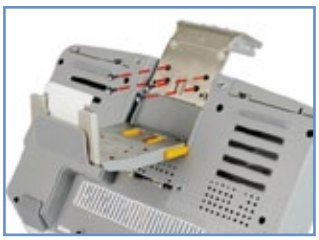
The combination of ICEFIRE and ICEFIRE Docking Station is an ideal solution for a healthcare cart:

- Desktop, swing arm, or VESA mounting options
- Expanded I/O connects to peripherals such as keyboard/ mouse, printer, barcode scanner, or medical equipments
- Easy to draw out and draw back
- Convenient bedside healthcare
- Power and battery options support uninterrupted point-of-care

Wall Mount Installation

Wall-mount Installation

ICEFIRE Car Dock (Rugged Docking Station)



With a metal snap on design, the ICEFIRE car dock is made to withstand harsh vehicle environments such as strong vibrations.

Part No. : ICEFIRE-T10A-DSRG-R10

ICEFIRE-ET

Enterprise Tablet PC

- 10.4” TFT 350 cd/m² XGA LCD with multi resistive touch
- Intel® Atom™ D525 dual core 1.8 GHz platform
- Powered by Windows® Embedded Standard 7 P
- 3-megapixel camera with LED flash
- Bluetooth, Wi-Fi, Ethernet LAN
- Dual hot swappable battery
- Optional docking station / smart card reader

Bluetooth | Wi-Fi | Touchscreen | Camera | Fingerprint Reader | SCR | Intelligent Systems Alliance

Applications

Enterprise Mobility

Using mobile devices helps save your time and increases productivity. The right technology enables the flow of information between handheld devices used by your workers and your core business systems. The ICEFIRE-ET utilizes wireless local area networks (WLANs) and management software to increase the data transfer speed and optimize your working mobility in logistics and warehousing environments.

Inspection

The ICEFIRE-ET is most suitable for inspection applications. It features an ergonomic and light weight design that is easy to carry around on-the-job. It also offers exceptional functions that allow information to be stored in real-time and help businesses to provide transparent inspection and accurate information.

Logistics and Warehouse

Enhancing on-duty staff work force and mobility, the tablet PC brings more efficiency to the workplace. All data and information are saved in the ICEFIRE-ET and can be transferred via wireless communication providing real-time responses without any loss.

ICEFIRE 2

10.4" Mobile Clinic Assistant

- 10.4” TFT XGA LCD
- Intel® Atom™ N2800 1.86GHz processor
- Powered by Windows® Embedded Standard 7 P
- Built-in 8GB mSATA storage
- Bluetooth, Wi-Fi, 3.75G wireless with GPS
- 1D/2D barcode reader, 13.56MHz RFID reader
- Dual-mode input (Digitizer + Multi-Resistive Touch)
- Dual hot swappable battery
- Dual Camera:
  1.3-megapixel front camera
  3.0-megapixel rear camera

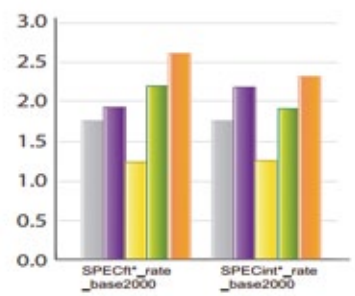
3.75G/HSUPA | Bluetooth | Wi-Fi | Touchscreen | Digitizer Screen | Camera | RFID | 1D Barcode Scanner | 2D Barcode Scanner

High Performance, Low Power Consumption CPU for Fanless Design

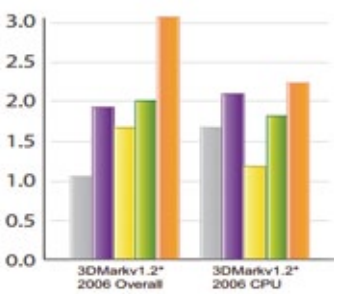
The new generation Intel® Atom™ N2800 processor provides reduced power consumption with high performance suitable for mobile devices in industrial computing. Benefits include:

- Display options include two digital ports supporting extra LVDS/HDMI/VGA interface
- Two times improved graphics with two HD video support
- Faster memory up to DDR3 1066
- Support fan-less design

Processor Performance



Graphics Performance



Intel® Atom™ processor D525 | Intel® Atom™ processor N455 | Intel® Atom™ processor N2800
Intel® Atom™ processor D2700 | Intel® Atom™ processor N2600

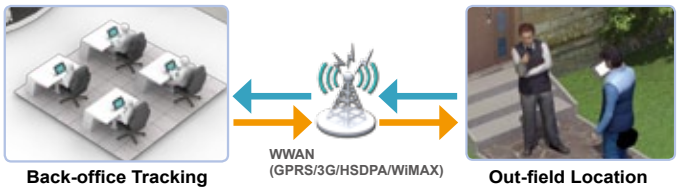
CPU Specification Comparison

	ICEFIRE	ICEFIRE2	
Core Functionality	1.67 GHz (N455) 1.8 GHz (D525)	1.6 GHz (N2600) 1.85 GHz (N2800)	
Process Technology / Packing Size	45-nm / 22x22	32-nm / 22x22	
Graphics Base Frequency	200 MHz (N455) 400 MHz (D525)	400 MHz (N2600) 640 MHz (N2800)	
Memory Technology	DDR3 667 (N455) DDR3 800 (D525)	DDR3 800 (N2600) DDR3 1066 (N2800)	
Max Memory Capacity	2GB (N455) 4GB (D525)	2GB (N2600) 4GB (N2800)	
CPU / TDP	D525 / 13W	N2600 / 3.5W	N2800 / 6.5W
Chipset / TDP	ICH8M / 2.4W	NM10 / 1.5W	NM10 / 1.5W
Power kit / TDP	Power / 7W	Power / 3W	Power / 3W
Total	22.4W	8W	11W

GPS Application : Position & Location

Together with wireless network technology (such as 3G), the built-in GPS tracks the exact location of the ICEFIRE users:

- Users can be located on a map to reference his/her own location in relation to other landmarks. With location based services, mobile workers can locate important destinations such as gas stations and customers in an unknown territory.
- Location information obtained from the GPS can be transmitted to the backend office through wireless broadband connectivity, allowing employees to be tracked while they are on the move.



mSATA Storage

mSATA SSD leverages the speed and reliability of the SATA interface, providing high-performance and cost-effective storage for smaller devices and enabling more compact integration into a wide variety of applications. Compared to the traditional HDD and CF card storage, mSATA has the following advantages:

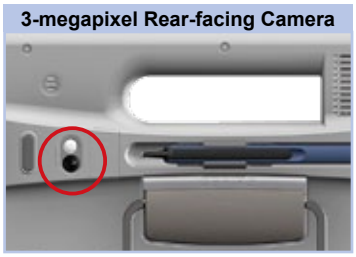
- Fast re-write capability
- Able to withstand vigorous vibrations
- Small in size

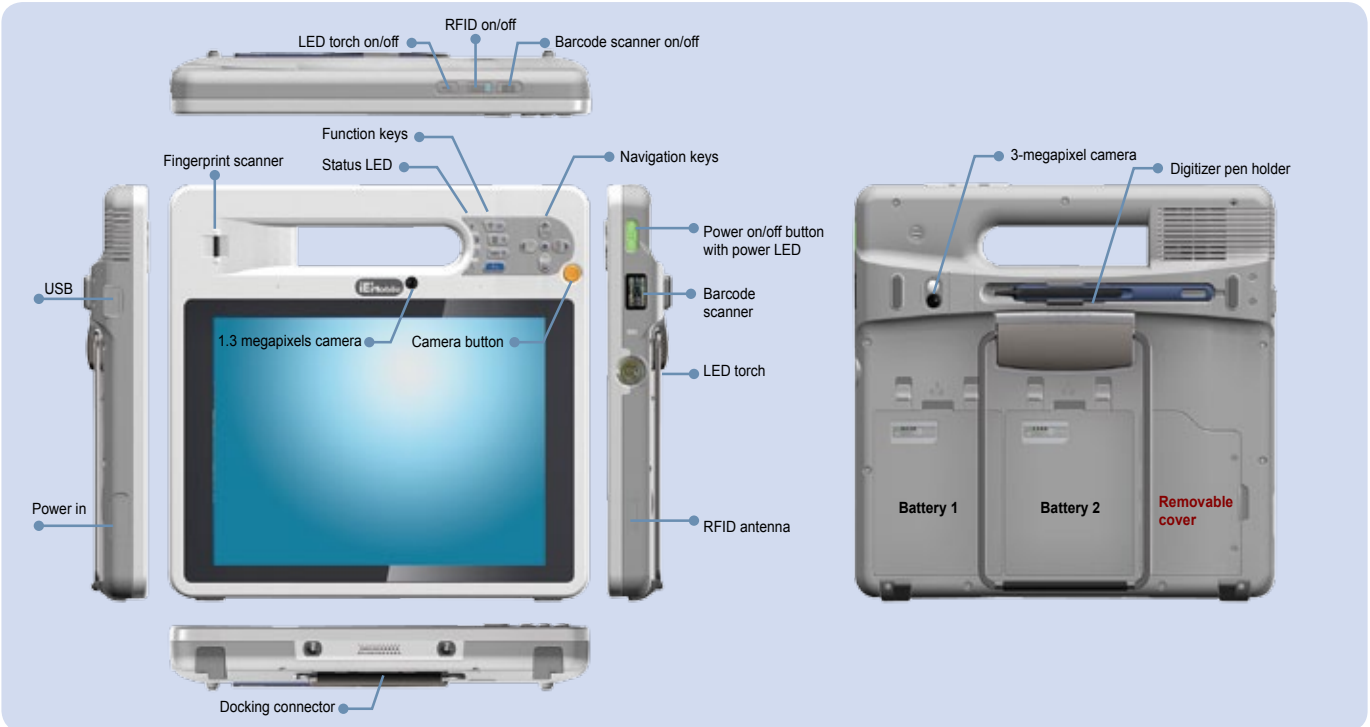
Flexible Module Expansion Slot

Located at the back of the ICEFIRE 2, the module expansion slot is designed for easy and fast exchange of a variety of modules, including RFID readers. This design brings functional versatility to the ICEFIRE 2 to serve a diverse range of applications.

Integrated Dual Camera

The ICEFIRE 2 is integrated with two camera, one on the front and one on the rear. The 3-megapixel rear-facing camera can be utilized for photographic and video documentation purposes. The 1.3-megapixel front-facing camera enables unified video communications wirelessly.





Daily Patient Record Case Study

Background

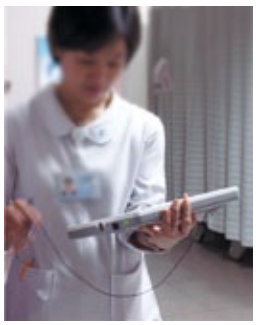
A major Taiwan-based hospital with the second largest patient flow in the country has been changing its paper-based recording system into electronic recording systems. With 1,096 beds, approximately 4,000 outpatient visits per day and a bed occupancy rate of 85%, emergency response and after patient care are the most important services provided by this hospital.

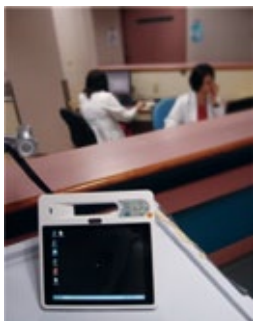
Challenge

Previously, nurses relied on desktop computers and paper records to monitor patients' daily health information such as food intake, body temperature, and output. Daily records were recorded on a notebook located at each patients' bedside. Nurses found this paper-based method to be inconvenient as the records were easily misplaced or lost. Furthermore, hand written information were often misunderstood or hard to read.
The hospital realized it was time to improve its daily patient recording system with an electronic-based system. The institution was in search for a mobile computing solution to enhance nursing efficiency and accuracy.

Solution

The ICEFIRE 10.4" Mobile Clinic Assistant offers a mobile platform in which nurses can input and store patient information instantly. The built-in hand writing recognition function and the digitizer technology allow nurses to easily write on the tablet surface without mis-touch. In addition, the barcode and RFID readers are very helpful when it comes to identifying patient and medication. The tablet PC can be connected to the hospital's medical database through Wi-Fi, and patient records can be updated or retrieved safely and efficiently.





Benefits

- 10.4" screen for easy viewing and operation.
- Dual-mode input with digitizer technology and resistive touch for hand writing recognition and mis-touch prevention.
- Built-in 1D/2D barcode and 13.56MHz RFID reader for automatic identification.
- Dual hot swap battery for increased device operation time.
- Ergonomic design for easy carry and easy use.

Flexible Installation Design

Move the stand downward. Slide the two latches again to lock the stand into place

Secure the holder onto the top of the docking station by inserting four retention screws

Mounting with Docking Station

The optional docking station of the ICEFIRE2-T10 can be installed on any VESA compliant mounting device. The VESA mount retention screw holes of the docking station are shown in 483H746HFigure 3-13. Follow the instructions in the user manual of the mounting device to mount the docking station securely.

Selection Guide

		ICEFIRE			ICEFIRE 2		
Model		**ICEFIRE-T10A HU/2G-32S-R11**	**ICEFIRE-T10A-TR/2G-32S-R10**	**ICEFIRE-T10A-ET/2G-32S-R10**	**ICEFIRE2-T10-HU-R10**	**ICEFIRE2-T10-TR-R10**	**ICEFIRE2-T10-ET-R10**
Display	LCD Size	10.4'' TFT LCD					
	Brightness (cd/m²)	350 cd/m²					
	Max Resolution	1024 x 768 pixels XGA					
	Viewing Angle	88/88/88/88 Deg.					
	Touch Screen	Resistive Support Multi-touch and Gesture					
	Digitizer	256 levels @ full scale pressure resolution	N/A	N/A	2048 levels@ full scale pressure resolution	N/A	N/A
System	CPU	1.8GHz Intel® Atom™ D525			1.86GHz Intel® Atom™ N2800		
	Chipset	Intel® ICH8M			Intel® NM10		
	Operating System	Microsoft® Windows® Embedded Standard 7 P (WS7P)			Microsoft® Windows® Embedded Standard 7 P (WS7P)		
	Memory	1333MHz 2GB DDR3 SDRAM			1333MHz 4GB DDR3 SDRAM		
	Storage	32GB SSD			mSATA 8G SLC		
Communication	Wireless LAN	Wi-Fi 802.11a/b/g/n			Wi-Fi 802.11b/g/n		
	Bluetooth	Bluetooth V2.1+ EDR (Class 2)			Bluetooth V3.0 + EDR (Class 2)		
	Modem	WCDMA/HSUPA	N/A	N/A	WCDMA/HSUPA	N/A	N/A
	GPS	N/A	N/A	N/A	Option	Option	Option
Data Collection	Camera	3-megapixel and LED Light			1.3-megapixel CMOS camera (Front) / 3-megapixel CMOS camera (Rear)		
	Barcode	1D/2D Imager Scan Engine		N/A	1D/2D Imager Scan Engine		N/A
	RFID	13.56 MHz RFID supports ISO15693 and ISO14443A/B compliant		N/A	13.56 MHz RFID supports ISO 15693 and 14443A/B compliant		N/A
Fingerprint Reader		Yes	Yes	N/A	Yes	Yes	N/A
Indicators & Buttons	LED Indicators	Power/ Wi-Fi/Bluetooth/ RFID/ Battery Status LED		Power/ Wi-Fi/Bluetooth/ Battery Status/	Power/ Wi-Fi/Bluetooth/ RFID/ Battery Status LED		Power/ Wi-Fi/ Bluetooth/ Battery Status
	Keys	5-way Navigation key/Barcode Scanner/RFID/LED Torch/Camera/Wi-Fi/Bluetooth/SAS/Function Key		5-way Navigation key/ Camera/Wi-Fi/Bluetooth/ SAS/Function Key	5-way navigation key/ Barcode Scanner/RFID/LED Torch/Camera/Wi-Fi/ Bluetooth/SAS/Function Key		5-way navigation key// Camera/ Wi-Fi/ Bluetooth/ SAS/ Function Key
I/O Interface	USB	1 x USB 2.0			1 x USB 3.0		
	LAN	1 x 10/100 Mbps			1 x 10/100/1000 Mbps		
	Audio	1 x 2W Speaker, 1 x Mic in					
	LED Torch	1 x LED Torch	1 x LED Torch	N/A	1 x LED Torch	1 x LED Torch	N/A
Power	Power Adapter	12V @ 5A @ 60W					
	Docking Power Adapter	19V @ 4.74A @ 90W					
	Battery	Dual 11.1V 1880mAh Li-ion Battery					
Environment	Operating Temperature	0ºC to +40ºC					
	Storage Temperature	-10ºC to +60ºC					
	Humidity	5%~95% non-condensing					
	Drop Survival	90 cm					
	Environmental Protection	IP 64 compliant front panel					
	Certifications	CE/FCC, Medical-grade Class B EN 60601-1/ EN60950	CE/FCC, Medical-grade Class B EN 60601-1/ EN60950	CE/FCC	CE/FCC	CE/FCC	CE/FCC
Physical Characteristics	Dimensions (LxWxH) (mm)	270 x 265 x 29					
	Weight	1.7 kg	1.7 kg	1.6 kg	1.7 kg	1.7 kg	1.6 kg

Ordering Information

Part No.	Description
ICEFIRE: Intel® Atom™ D525 CPU with Windows® Embedded Standard 7	
ICEFIRE-T10A-HU/2G-32S-R11	10.4" TFT-LCD 350 cd/m² XGA Industrial Mobile Clinical Assistant with Dual-core Intel® Atom™ D525 1.8GHz CPU, Multi-Touch and Digitizer Dual Mode, 2GB DDR3 RAM, HSUPA, 802.11a/b/g/n Wireless, Bluetooth, 1D/2D Barcode Scanner, RFID, 3-megapixel Camera, LED Torch, 32GB SSD, WS7P RoHS
ICEFIRE-T10A-TR/2G-32S-R10	10.4" TFT-LCD 350 cd/m² XGA Industrial Mobile Clinical Assistant with Dual-core Intel® Atom™ D525 1.8GHz CPU, Resistive Multi-Touch, 2GB DDR3 RAM, 802.11a/b/g/n Wireless, Bluetooth, 1D/2D Barcode Scanner, RFID, 3-megapixel Rear Camera, LED Torch, 32GB SSD, WS7P, RoHS
ICEFIRE-T10A-ET/2G-32S-R10	10.4" TFT-LCD 350 cd/m² XGA Industrial Mobile Clinical Assistant with Dual-core Intel® Atom™ D525 1.8GHz CPU, Resistive Multi-Touch, 2GB DDR3 RAM, 802.11a/b/g/n Wireless, Bluetooth, 32GB SSD, WS7P RoHS
ICEFIRE 2: Intel® Atom™ N2800 CPU with Windows® Embedded Standard 7	
ICEFIRE2-T10-HU-R10	10.4" TFT-LCD 350 cd/m² XGA Industrial Mobile Clinical Assistant with Dual-core Intel® Atom™ N2800 1.86GHz CPU, Multi-Touch and Digitizer Dual Mode, 4GB DDR3 RAM, HSUPA, 802.11b/g/n Wireless, Bluetooth, 1D/2D Barcode Scanner, RFID, 3M Pixel Rear Camera, 1.3-megapixel Front Camera, LED Torch, 8GB mSATA, WS7P RoHS
ICEFIRE2-T10-TR-R10	10.4" TFT-LCD 350 cd/m² XGA Industrial Mobile Clinical Assistant with Dual-core Intel® Atom™ N2800 1.86GHz CPU, Resistive Multi-Touch, 4GB DDR3 RAM, 802.11b/g/n Wireless, Bluetooth, 1D/2D Barcode Scanner, RFID, 3-megapixel Rear Camera, 1.3-megapixel Front Camera, LED Torch, 8GB mSATA, WS7P, RoHS
ICEFIRE2-T10-ET-R10	10.4" TFT-LCD 350 cd/m² XGA Industrial Mobile Clinical Assistant with Dual-core Intel® Atom™ N2800 1.86GHz CPU, Resistive Multi-Touch, 4GB DDR3 RAM, 802.11b/g/n Wireless, Bluetooth, 8GB mSATA, WS7P RoHS

Model Variations

Part No.	Digitizer	Touch	Wireless	Bluetooth	3.75G	GPS	Barcode	RFID	Fingerprint Reader	Storage
ICEFIRE: Intel® Atom™ D525 CPU with Windows® Embedded Standard 7										
ICEFIRE-T10A-HU/2G-32S-R11	Digitizer	Resistive Multi-touch	802.11a/b/g/n	Ver. 2.1+EDR, Class 2	Qualcomm	N/A	1D/2D	RFID	Yes	32G SSD
ICEFIRE-T10A-TR/2G-32S-R10	N/A	Resistive Multi-touch	802.11a/b/g/n	Ver. 2.1+EDR, Class 2	N/A	N/A	1D/2D	RFID	Yes	32G SSD
ICEFIRE-T10A-ET/2G-32S-R10	N/A	Resistive Multi-touch	802.11a/b/g/n	Ver. 2.1+EDR, Class 2	N/A	N/A	N/A	N/A	N/A	32G SSD
ICEFIRE 2: Intel® Atom™ N2800 CPU with Windows® Embedded Standard 7										
ICEFIRE2-T10-HU-R10	Digitizer	Resistive Multi-touch	802.11b/g/n	Ver. 3.0+EDR Class 2	Qualcomm	Option	1D/2D	RFID	Yes	8G mSATA
ICEFIRE2-T10-TR-R10	N/A	Resistive Multi-touch	802.11b/g/n	Ver. 3.0+EDR Class 2	N/A	Option	1D/2D	RFID	Yes	8G mSATA
ICEFIRE2-T10-ET-R10	N/A	Resistive Multi-touch	802.11b/g/n	Ver. 3.0+EDR Class 2	N/A	Option	N/A	N/A	N/A	8G mSATA

Packing List

Item	Part No.	HU	TR	ET
Digitizer Pen	7Z000-SU5E10S06AU00X-RS	•		
Stylus	43125-0002C0-00-RS		•	•
Battery Pack	31603-000016-RS	•	•	
Battery Pack-B	31603-000020-RS			•
Medical-grade Power Adapter (12V/60W)	63040-010060-020-RS	•	•	
Non-Medical-grade Power Adapter (12V/60W)	63040-010060-030-RS			•
User's Manual CD	7B000-000552-RS	•	•	•

Carrying Case

Docking Station

Smart Card Reader

Battery Pack

12V Power Adapter

19V Power Adapter

Digitizer Pen

Stylus

Optional Accessory List

Item	Part No.	Description
Docking Station	ICEFIRE-T10A-DSNM-R10	ICEFIRE Docking Station Without Docking Adapter, Normal type
	ICEFIRE-T10A-DSRG-R10	ICEFIRE Docking Station Without Docking Adapter, Rugged type
Docking Station Power Adapter	19B00-000288-00-RS	Standard power adapter for docking station
	19B00-000289-00-RS	Medical grade power adapter for docking station
	63040-290090-010-RS	Car cigarette power adapter for docking station
Smart Card Reader	ICEFIRE-T10A-SCR01-R10	USB 2.0 (Full Speed) Smart Card Reader Complies with ISO7816-1,2,3 for ICEFIRE-T10A
Battery Pack	31603-000016-RS	11.1V 1880 mAh Battery
Battery Pack-B	31603-000020-RS	11.1V 1880 mAh Battery, Black
Digitizer Pen	7Z000-SU5E10S06AU00X-RS	Digitizer Sensor Pen
Stylus	43125-0002C0-00-RS	Touch Pen
Carrying Case	7Z000-ICEFIRET10APOUCH-RS	Black, leather protective bag with shoulder strap

ICEROCK

Infotainment Tablet PC

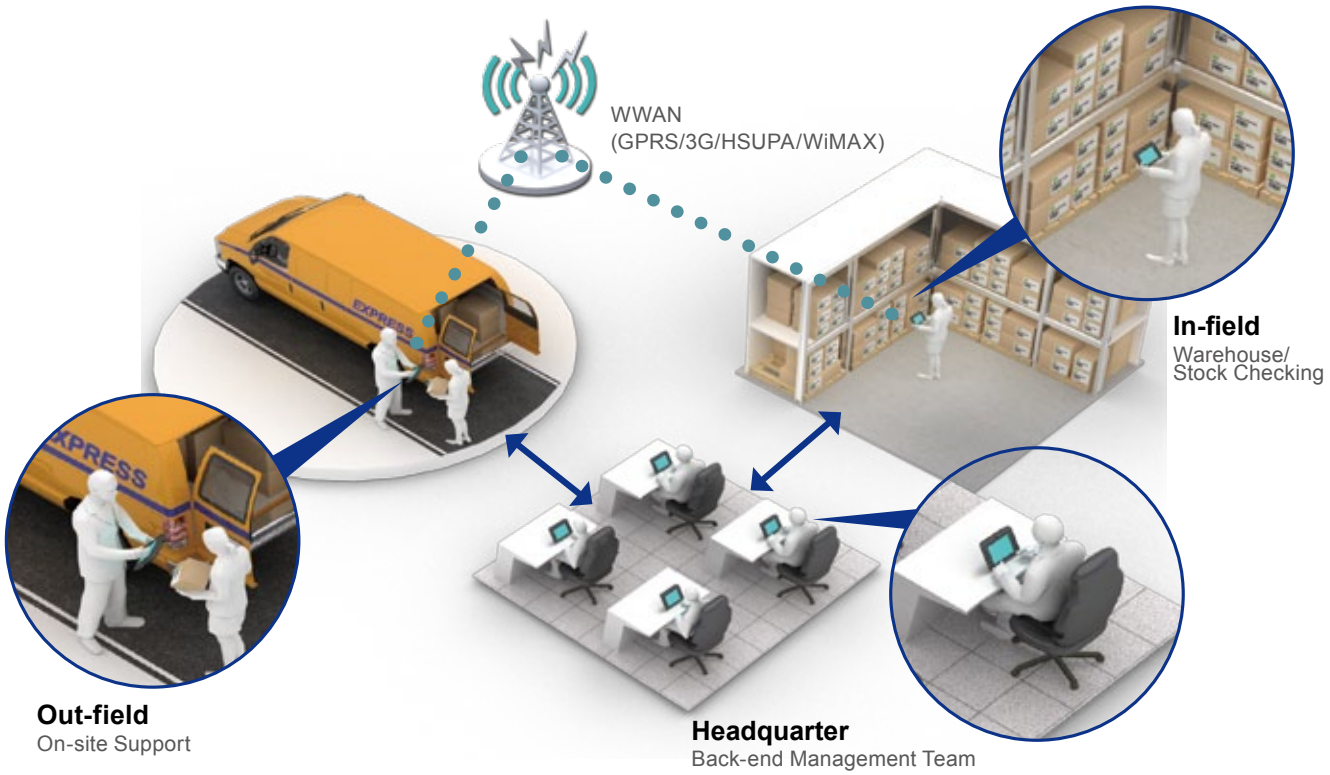
- 8” 350 cd/m² TFT XGA LCD
- Intel® Atom™ Z530 platform
- Powered by Windows® XP Embedded
- Bluetooth, Wi-Fi, 3.75G wireless
- Optional 1D/2D barcode scanner and 13.56 MHz RFID reader compliant with ISO 15693 and ISO 14443A

3.75G/HSUPA | Wi-Fi | Bluetooth | Camera | IP62 | Touchscreen | Fanless | RFID | 1D Barcode Scanner | 2D Barcode Scanner | Windows XP | Intel Intelligent Systems Alliance

Application

The ICEROCK is a semi-rugged and powerful tablet PC for indoor, outdoor and home automation applications. It can be applied across vertical markets that need a robust device for harsh work environments.

The ICEROCK utilizes the power of Intel® Atom™ Z530 processor and integrates Wi-Fi 802.11b/g/n, Bluetooth and the enhanced Gobi™3000 mobile broadband for out-field users.



Advanced Data Acquisition Technology

RFID Reader

Certified with ISO15693, ISO14443A, and ISO14443B, the built-in RFID reader for data collection automates data capture, improving data accuracy, productivity, and performance for business applications.

1D/2D Barcode Scanner

Powered by Honeywell Adaptus® Imaging Technology, the built-in barcode reader features high quality reading functionality and advanced image capture capabilities. Designed with industry-leading motion tolerance, low light sensitivity, broad depth of reading distances, and tough environmental considerations, it is a quick and easy adoption for point-and-shoot scanning.

Inventory Management

Inventory Registry

Inventory Tracking

Optional High Density Battery

Longer Power Support – Optional Battery Pack with Larger Battery Capacity

The ICEROCK, with rich wireless communication and various data collection functions, can be sustained for a long time with the optional 5000 mAh battery pack.

Part No. 31603-000022-RS

Larger Battery Pack

Specifications

	Item	Rating Performance	Remark
1	Nominal capacity	5000 mAh	In standard charging
2	7.4VNominal Voltage	7.4V	Within 1 hour after quick charging
3	Maximum charge voltage	8.4V	
4	Operating condition	Charge: 0˚C~40˚C Discharge: -10˚C~60˚C	
5	Storage temperature	-20~60˚C	

Table Ordering System Case Study

Background

With more than 20 years experience in Japanese cuisine and around 50 franchises in South East Asia, a Japanese restaurant has always put customer service as its first priority. However, with the growth of the Asian market in recent years, competition in the dining scenery is increasing by the day. In order to keep ahead of the competition and be successful, service differentiation and quality are the key factors.

Challenge

In the past, waiters recorded orders manually, which was time consuming and frequently got complains from customers about slow services especially during peak hours. Hence, in order to increase customer satisfaction and differentiate its services from competitors, the Japanese restaurant started to look into employee workflow and identify areas of inefficiencies. In addition to improving workflow, the founder also wanted to create a completely new and different kind of experience and make the service more appealing to customers.

After a few months of observation and research, it was clear that an electronic table ordering system was necessary. Not only will this reduce order time, it can also create a unique experience for customers.

Solution

The ICEROCK allow waiters to process customer orders efficiently. The 8" resistive touch tablet PC enable convenient selection of orders in the e-menu system integrated on the device. With the built-in Wi-Fi function, orders can be directly sent to the kitchen where restaurant chefs can prepare orders immediately. At the same time, the order is sent wirelessly to the cash register where it is recorded and payment due is calculated. Invoices can be printed through a peripheral printer via Bluetooth connection.

Kitchen Display
The kitchen display is connected to the ICEROCK via Wi-Fi. Table orders can be processed immediately by the chef once they are taken.

Bluetooth Printer
A invoice printer is connected to the ICEROCK via Bluetooth. Once a waiter completes a table order, the information is sent to the printer and an invoice is prepared immediately.

Table Ordering System

Checkout Counter
Each order collected by the ICEROCK is transmitted to the POS system at the checkout counter through Wi-Fi. Orders from each table are recorded and receipts are prepared accordingly once customers make their payment.

Benefits

- Light in weight makes it easy to carry.
- Built-in Bluetooth and Wi-Fi for peripheral and device connection.
- Reduced table ordering time and improved table turnover rate.
- Increased customer return rate.

Specifications

Model		ICEROCK
Display	LCD Size	8.0" TFT LCD
	Brightness (cd/m²)	350 cd/m²
	Max Resolution	800 x 600 pixels SVGA
	Viewing Angle	70/70/60/70 Deg.
System	CPU	Intel® Atom™ Z530 1.6GHz
	Chipset	Intel® SCH US15WP
	Operating System	Microsoft® Windows® XP Embedded
	Memory	2GB DDR2 on board
	Storage	CompactFlash® Slot, SD Card Slot
Communication	Wireless LAN	Wi-Fi 802.11b/g/n
	Bluetooth	Bluetooth® V3.0 + HS (Class II)
	Modem	WCDMA/HSUPA (optional)
	GPS	by customization
Data Collection	Camera	1.3-megapixel
	Barcode	1D Laser / 2D Imager Scan Engine
	RFID	13.56 MHz RFID supports ISO 14443A/B
Indicators & Buttons	LED Indicators	Power/ Wi-Fi/Bluetooth/HDD/3.75G Status LED
	Keys	5-way navigation key 8 x Programmable function keys
I/O Interface	USB	2 x USB 2.0 1 x Mini USB Client
	LAN	1 x 10/100/1000 Mbps GbE RJ-45
	Audio	2 x 1.5W Speaker
		1 x Mic 1 x Headphone
Power	Power Adapter	12V @ 3A @ 36W
	Battery	7.4 V 2400 mAh Li-ion Battery (Optional 5000mAH)
Enviroment	Operating Temperature	0˚C to +40˚C
	Storage Temperature	-20˚C to +60˚C
	Humidity	5%~95% non-condensing
	Drop Survival	1.0 M
	Environmental Protection	IP 62 compliant front panel
	Certifications	CE/FCC
Physical Characteristics	Dimensions (LxWxH) (mm)	255 x 180 x 37
	Weight	1.1 kg

Ordering Information

Part No.	Description
ICEROCK-08A-Z530/WT-R/2G-R12	8.0" 350cd/m² SVGA Mobile Panel PC with Intel® Atom™ Z530 1.6GHz, 802.11b/g/n Wireless Module, Bluetooth Module, Touch screen, 1.3-megapixel Camera, 2GB SDRAM, RoHS
ICEROCK-08A-WT-R-HU/2G-R12	8.0" 350cd/m² SVGA Mobile Panel PC with Intel® Atom™ Z530 1.6GHz, 802.11b/g/n Wireless Module, Bluetooth Module, Touch screen, 1.3-megapixel Camera, 2GB SDRAM, 3.75G Module, RoHS
ICEROCK-08A-BAR-2G-R12	8.0" 350cd/m² SVGA Mobile Panel PC with Intel® Atom™ Z530 1.6GHz, 802.11b/g/n Wireless, Bluetooth, RFID, 1D/2D Barcode Scanner, 1.3-megapixel Camera, 2GB SDRAM, RoHS
ICEROCK-08A-BAR-HU/2G-R12	8.0" 350cd/m² SVGA Mobile Panel PC with Intel® Atom™ Z530 1.6GHz, 802.11b/g/n Wireless, Bluetooth, RFID, 1D/2D Barcode Scanner, 1.3-megapixel Camera, 2GB SDRAM, 3.75G Module, RoHS

Packing List

Item	Part No.	Q'ty
Battery Pack	31603-000011-RS	1
Power Adapter	63040-010060-030-RS	1
Power Cord	32702-000200-100-RS	1
Stylus	7Z000-6051D0320101-RS	1
Plastic Protective Shell	47003-007600-00-RS	1
User Manual CD	7B000-000774-RS	1
IEI One Key Recovery CD	7B000-000724-RS	1

Optional Accessory List

Item	ICEROCK	Description
Docking Station	ICEROCKDS-08A-R10	Docking station with VGA, five USB 2.0, RJ-45, and RS-232 ports for ICEROCK series
Battery Pack	31603-000011-RS	7.4V 2400 mAh Battery
Battery Pack - Large	31603-000022-RS	7.4V 5000 mAh Battery
Leather Carrying Case	ICEROCKCB-00-R10	Leather carrying case in black for ICEROCK-08A series
OS Windows® XP Embedded	ICEROCKCF-08-XPE-2GB-R10	2 GB CompactFlash® with Windows® XPE OS image and license
	ICEROCKCF-08-XPE-4GB-R10	4 GB CompactFlash® with Windows® XPE OS image and license

Stylus

Battery Pack

Docking Station

Battery Pack (Large)

Power Adapter

Plastic Protective Shell

Leather Carrying Case

ICEROCK3 New

CORNING Gorilla® Glass

Ultra Tough Assistant

- 10.1” 350 cd/m² TFT LCD with capacitive touch
- Intel® Atom™ N2800 1.86GHz processor
- Powered by Windows® Embedded Standard 7 P
- Bluetooth, Wi-Fi, 3.75G wireless with GPS
- 1D/2D barcode reader, 13.56MHz RFID reader
- 1.3-megapixel CMOS front camera and 5-megapixel CMOS rear camera
- Optional built-in hot-swappable battery

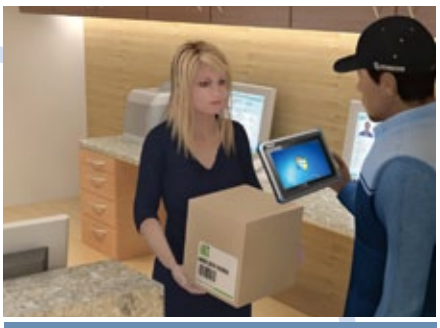
3.75G/HSUPA | Bluetooth | Wi-Fi | Camera | IP64 | Touchscreen | Fanless | RFID | 7H Hardness | 1D Barcode Scanner | 2D Barcode Scanner

Field Service Application

Based on the new generation Intel® Atom™ platform and the Windows® Embedded Standard 7 operating system, the ICEROCK3 is a high performance and rugged tablet PC designed for field service applications. It is integrated with a rich set of data capture and wireless communication functions that allow businesses to streamline workflow and maintain workforce visibility.

Field Services

Factory Management



Logistics Management

Management Center

High Performance, Low Power Consumption CPU for Fanless Dessign

Benefits

- CPU TDP (3.5/6.5/10W) and average power are lower than Pine Trail (6.5/10/13W)
- Provides two digital display ports supporting extra LVDS/HDMI/VGA display options
- Two-time improved graphics with 2 HD video support
- Faster memory: up to DDR3 1066MHz
- HD decoding with Blu-ray support

Specifications Comparison

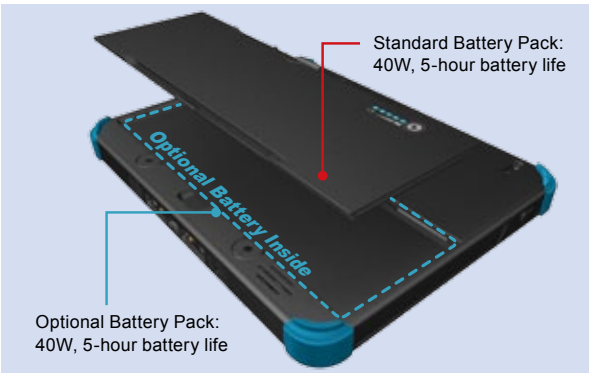
	N270 (Navy Pier)	D525/D425/N455 (Pine Trail)	N2800/N2600 (Cedar Trail)
Process	45nm	45nm	32nm
Processor Frequency	N270: 1.6GHz	D525/D524: 1.8GHz N455: 1.66GHz	N2800: 1.86GHz N2600: 1.6GHz
CPU TDP	N270: 2.5W	D525: 13W D425: 10W N455: 6.5W	N2800: 6.5W N2600: 3.5W
Chipset/ PCH TDP	945GSE: 5.5W ICH7M: 1.9W	ICH8M: 2W	Intel® NM10: 1.5W
Memory	DDR2 400/533MHz (2GB max.)	DDR2/DDR3 up to 667 MHz for N455, 800MHz for D525/ D425 (4GB max.)	DDR3 1066MHz for N2800 (4GB max.) DDR3 800MHz for N2600 (2GB max.)
Graphics	DX9, OGL 1.4 Gfx @ 133 MHz	DX9, OGL 1.5 Gfx @ 200 MHz (N455) Gfx @ 400 MHz (D525/D425)	DX9, OGL 3.0 Gfx @ 400 MHz (N2600) Gfx @ 640 MHz (N2800)
Video Decoding	MPEG2	Discrete 3rd part decoder	MPEG2, H.264, VC-1/WMV9 Up to 1080p decoding

Efficient Power Management

In addition to the standard 40W battery, a built-in battery pack is offered as an optional selection for the ICEROCK3 in order to meet extended work hour requirements. With the additional battery pack, the ICEROCK3 can achieve efficient power management by:

- Increasing device operation time to 10 hours
- Supporting hot-swappable function, which means the batteries can be refilled without having to shut down the system

Battery Pack	Power (W)	Operation Time (Hrs)
Standard	40	5
Optional	40	5



Rugged Design

In order to meet outdoor environmental requirements, the ICEROCK3 has been designed with an IP 54 rating, 1.2M drop survival, and wide operating temperatures.

IP 54 Rating

Dust tight and protected against water splashed against the component from any direction

Operating Temperature 0°C ~ 40°C

It can be operated under a wide range of temperatures

1.2M Drop Test

Passed the 1.2M drop test on all sides 26 times

Storage Temperature -20°C ~ 60°C

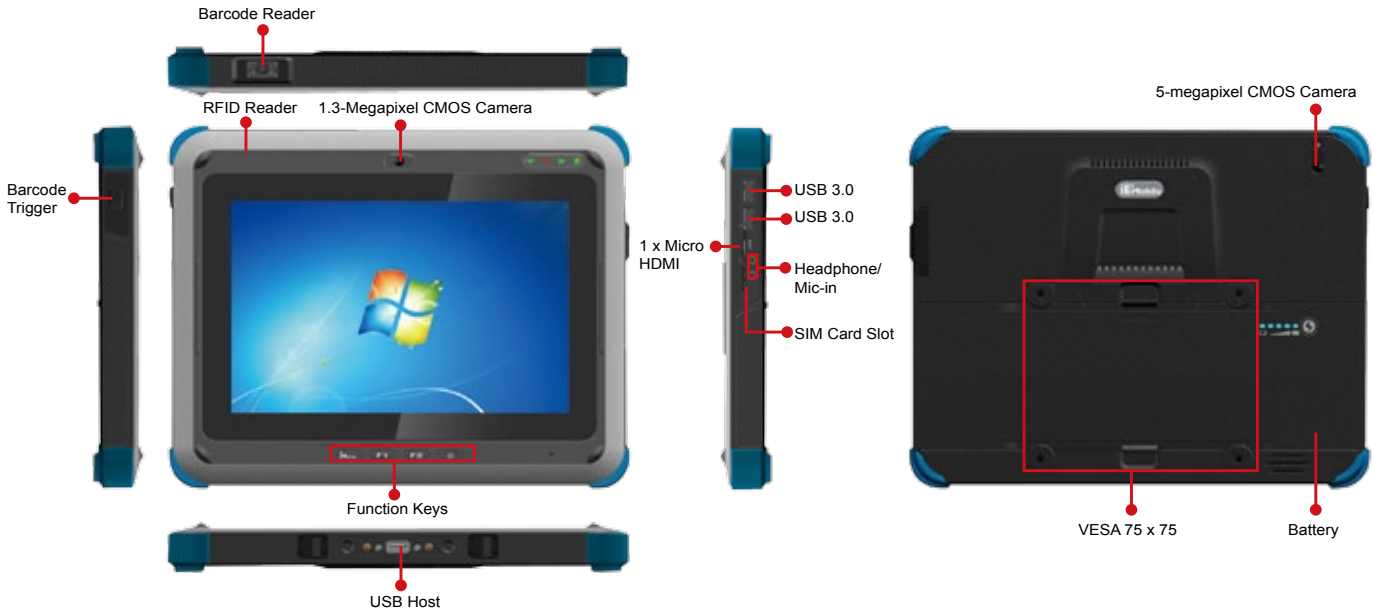
It can be stored under extreme temperatures

Corning® Gorilla® Glass

Durable and damage resistant Corning® Gorilla® Glass with 7H hardness.

Protective rubbers are located on all four corners of the ICEROCK3, enhancing its strength against bumps and drops.

A special protective cover is designed to prevent water and dust from entering the device.



Specifications

Model		ICEROCK3
Display	LCD Size	10.1" TFT LCD
	Brightness (cd/m²)	350
	Max. Resolution (HxV)	1280 x 800
	Viewing Angle	85/85/85/85 Deg.
	Touch Screen	Projected capacitive type
System	CPU	Intel® Atom™ N2800 1.86GHz
	Chipset	Intel® NM10
	Operating System	Windows® Embedded Standard 7 P
	Memory	On-board 4 GB DDR3
	Storage	8GB mSATA
Communication	Wireless LAN	Wi-Fi 802.11b/g/n
	Bluetooth	Bluetooth 3.0
	Modem	UMTS/HSUPA Band 1, 2, 4, 5, 6, 8
	GPS	GPS with internal antenna
Data Collection	RFID	13.56MHz RFID supports ISO 14443A/B (Mifare, Felica)
	Barcode	1D/2D imager scan engine
	Camera	1.3-megapixel front camera 5-megapixel rear camera

Indicators & Buttons	Keys	1 x Power button 2 x Hot keys 1 x iMenu
	LED Indicators	Battery charging/peripheral device/storage/ wireless device
I/O Interface	Audio	1 x Headphone 1 x Mic-in
		2 x 1 W speakers
	Expansions	3 x USB 3.0 1 x SIM card slot 1 x Micro HDMI
Power	Power Adapter	Input AC: 100~240V Output DC: 19V / 3A
	Battery	40 W standard battery pack (5 working hours) 40 W optional battery pack (5 working hours)
Environment	Operating Temperature	0°C~40°C
	Storage Temperature	-20°C~60°C
	Humidity	5%~95%, non-condensing
	Drop Survival	1.2M
	Environmental Protection	IP 54
	Certifications	CE / FCC
Physical	Dimensions (LxWxH) (mm)	297 x 234 x 32
	Weight	1.9 kg

Ordering Information

Part No.	Description
ICEROCK3-T10-HU-R10	10.1" 350cd/m² Tablet PC with Intel® Atom™ N2800 1.86GHz CPU, Capacitive Touch, 4GB RAM, 8 GB mSATA, 3.75G, 802.11b/g/n, BT, GPS, Barcode Reader, RFID, WS7P, RoHS
ICEROCK3-T10-ET-R10	10.1" 350cd/m² Tablet PC with Intel® Atom™ N2800 1.86GHz CPU, Capacitive Touch, 4GB RAM, 8 GB mSATA, 802.11b/g/n, BT, HF RFID, WS7P, RoHS

Model Variations

Part No.	Touch	Wireless	Bluetooth	3.75G	GPS	Barcode	RFID	Front Camera	Rear Camera
ICETOCK3-T10-HU-R10	Capacitive touch	802.11b/g/n	Ver. 3.0	Yes	Yes	1D/2D	Yes	Yes	Yes
ICEROCK3-T10-ET-R10	Capacitive touch	802.11b/g/n	Ver. 3.0	N/A	N/A	N/A	Yes	Yes	Yes

Optional Accessory List

Item	Description
Charging Bay	Independent charging bay for ICEROCK3 (with interlocking design)
Docking Station	Docking station for ICEROCK3
Combo Reader	Smart card reader, magnetic stripe reader, fingerprint reader Combo add-on module

Charging Bay

Docking Station

Combo Reader

ICECARE-05

New

Pocket Mobile Field Assistant

- 5” 350 cd/m² TFT LCD with projected capacitive touchscreen
- Texas Instruments Sitara™ ARM® Cortex™-A8 CPU
- Powered by Android 4.1.2 OS
- Bluetooth and Wi-Fi
- 5-megapixel CMOS camera
- Optional HF / UHF RFID reader

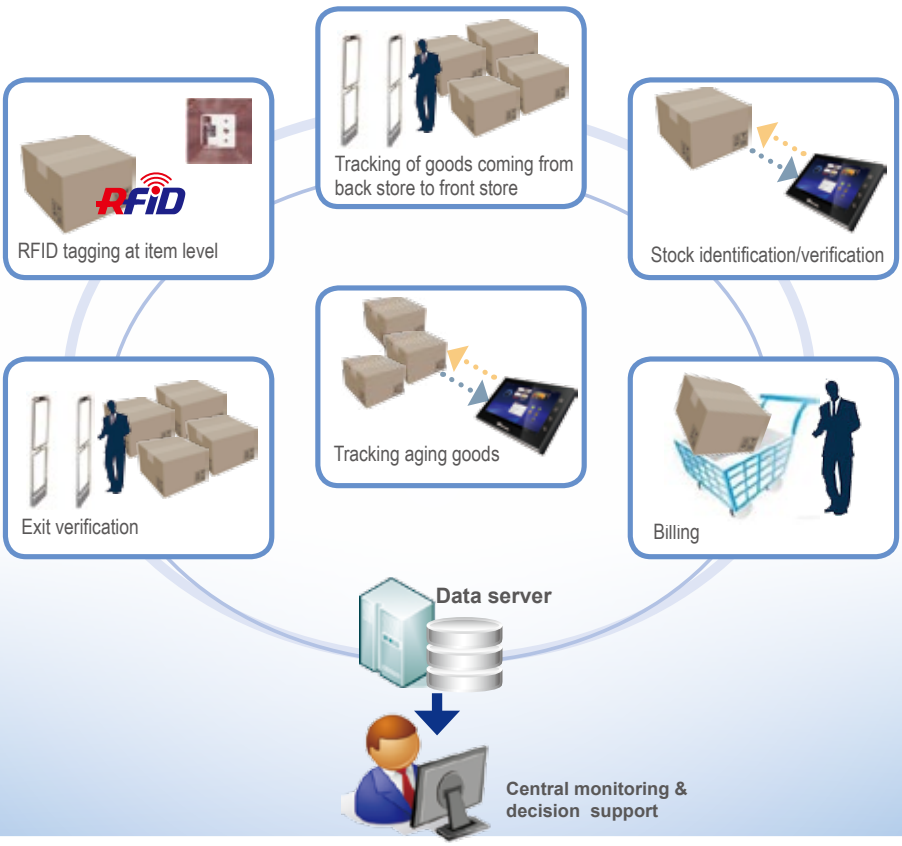
Cortex Intelligent Processors by ARM

Texas Instruments

Bluetooth | Wi-Fi | Camera | Touchscreen | RFID | UHF | Android

Retail and Warehouse Management Applications

The ICECARE-05 is designed for applications in the retail industry. Pocket sized consumer-grade mobile devices are not designed to withstand drops and often fall short on battery life. However, with its industrial-grade design, the ICECARE-05 offers prolonged operation time and enhanced durability to users in the vertical industry.



The Industry's Lightest Android Tablet with Rugged Design

The ICECARE-05 is the industry's lightest Android tablet PC with a rugged design. Weighing less than 300 grams, the ICECARE-05 is designed with an IP 64 rating, 1.2M drop survival, and wide operating temperatures.

IP 64 Rating

Dust tight and protected against water splashed against the component from any direction.

Operating Temperature -10°C ~ 50°C

It can be operated under a wide range of temperatures.

1.2M Drop Test

Passed the 1.2M drop test on all sides 26 times.

Storage Temperature -20°C ~ 60°C

It can be stored under extreme temperatures.

Protective cover over:
1 x Micro USB
1 x microSD

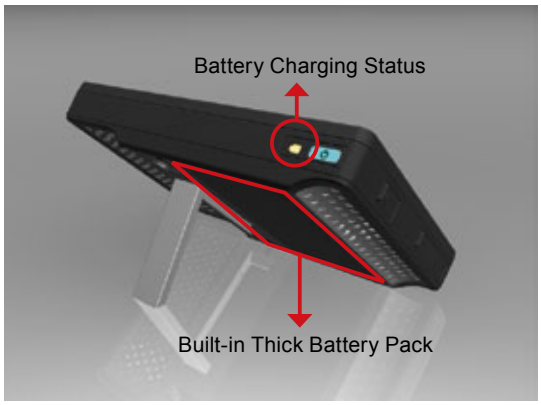
The ICECARE-05 is surrounded by black rubber protecting it from water and dust intrusions and drops.

Enhanced Operating Time

In order to increase device operating time and meet the requirements of long work hours, the ICECARE-05 is built in a thick battery pack with an extended operating time of 8 hours.

Battery Pack	Details	*Operating Time (Hrs)
Thick Battery	3600mAh	8 Hrs (Normal Usage)

* Under normal usage when 3G/GPS/UHF functions are turned off.



Optional Advanced RFID Technology

The RFID (Radio-Frequency Identification) technology utilizes frequencies ranging from 125KHz to 2.45GHz. The ICECARE-05 features an optional HF or UHF RFID reader.

HF RFID Reader

The 13.56MHz RFID reader is suitable for item identification in warehouse.

UHF RFID Reader

The optional UHF RFID reader, which operates within 840MHz to 960MHz, is excellent for multiple item identification and tracking applications.

- HF RFID: short reading distance, single item identification
- UHF RFID: long reading distance, multiple item identification

Specifications

Model	ICECARE-05	
Display	LCD Size	5" TFT LCD
	Brightness (cd/m²)	350
	Max. Resolution	800 (H) x 480 (V)
	Viewing Angle	70/70/50/70 Deg.
	Touch Screen	Projected capacitive type
System	CPU	TI Sitara™ AM3715 1GHz
	Operating System	Android 4.1.2
	Memory	4GB eMMC Flash + 512MB SDRAM
Communication	Wireless LAN	802.11a/b/g/n
	Bluetooth	Bluetooth 4.0
Data Collection	RFID	13.56MHz RFID reader (optional) UHF RFID reader (optional)
	Camera	5-megapixel camera
Indicators & Keys	LED Indicators	Power on LED (Blue)/ Sleep (Red)
		Charging LED (Orange)/ Full (Green)
	Keys	Power on / off switch
		4 x Function key (Home/Menu/Back/Search)

I/O Interface	Audio	1 x Headset
		1 x 0.5W speaker
	Expansions	1 x Micro USB Client
		1 x microSD (up to 32G)
Power	Power Adapter	5V/2.1A/10.2W
	Battery	3.7V 3600mAh
Environment	Operating Temperature	-10°C ~ 50°C
	Storage Temperature	-20°C ~ 60°C
	Humidity	5%~95%, non-condensing
	IP Protection	IP 64
	Drop Survival	1.2m
Pysical Characteristics	Dimensions (LxWxH) (mm)	139 x 99.3 x 22.8
	Weight	297g

Packing List

Item	Part No.	Q'ty
Adapter	63040-330010-000-RS	1
Cable	32001-008501-100-RS	1
Earphone	30900-000003-RS	1

Ordering Information

Part No.	Description
ICECARE-05-HF-R10	5" TFT-LCD tablet with TI Sitara™ AM3715 CPU, Wi-Fi/Bluetooth, HF RFID, 5-megapixel camera, Android 4.1.2 OS, RoHS
ICECARE-05-ET-R10	5" TFT-LCD tablet with TI Sitara™ AM3715 CPU, Wi-Fi/Bluetooth, 5-megapixel camera, Android 4.1.2 OS, RoHS
ICECARE-05-UHF-R10	5" TFT-LCD tablet with TI Sitara™ AM3715 CPU, Wi-Fi/Bluetooth, UHF RFID, 5-megapixel camera, Android 4.1.2 OS, RoHS

Model Variations

Part No.	Touch	Wireless	Bluetooth	3.75G	GPS	HF RFID	UHF RFID
ICECARE-05-HF-R10	Capacitive touch	802.11a/b/g/n	Ver. 4.0	N/A	N/A	Yes	N/A
ICECARE-05-ET-R10	Capacitive touch	802.11a/b/g/n	Ver. 4.0	N/A	N/A	N/A	N/A
ICECARE-05-UHF-R10	Capacitive touch	802.11a/b/g/n	Ver. 4.0	N/A	N/A	N/A	Yes

ICECARE-07

Mobile Field Assistant

- 7" 500 cd/m² TFT LCD with projective capacited touchscreen
- Texas Instruments Sitara™ ARM® Cortex™-A8 CPU
- Powered by Android 4.1.2 OS
- 1D laser / 2D imager scan engine, HF RFID reader
- Dual Camera :
  2-megapixel CMOS front camera
  5-megapixel CMOS rear camera
- Bluetooth, Wi-Fi, 3.75G wireless
- Built-in Ublox GPS with internal antenna
- Dual hot swappable battery

3.75G/HSUPA | Bluetooth | Wi-Fi | USB 2.0 | GPS | Camera | Touchscreen | IP64 | 1D Barcode Scanner | 2D Barcode Scanner | Android

Field Service Application

Increase field service productivity and efficiency with the ICECARE-07 7" Mobile Field Assistant. This RISC-based tablet PC features TI AM3715 CPU and runs on the Android 4.1.2 OS. Targeted for field service applications, it can be used for:

- Capturing and recording information in real-time
- Determining customers' locations
- Tracking and locating mobile field workers
- Accessing and updating information in real-time

Track and Locate

Capture and Record

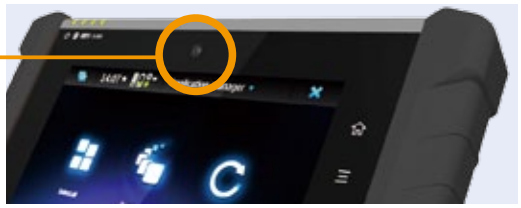
Access and Update

Out-field
WWAN
(GPRS/3G/ HSDPA/WiMAX)

Advanced Data Collection Technology

2-megapixel CMOS Camera

The optional 2-megapixel CMOS front camera functions as a web camera allowing field technicians to communicate face-to-face with the staffs in the office and other parties while on the move.



13.56 MHz RFID Reader

Supports Read/Write, ISO 14443A (Mifare), ISO 18092 (Felica), ISO 15693.
Supports NFC Read/Write and peer-to-peer communication.

5-megapixel CMOS Camera

The 5-megapixel CMOS rear camera can be used to capture environmental information while field technicians are performing services.

1D Laser / 2D Imager Scan Engine

The variety of barcode symbologies supported by the 1D laser / 2D imager scan engine allows easy and fast data capture, and thereby optimize work efficiency.

Rugged Design

Designed specifically for out-field applications, the ICECARE-07 has been tested and approved for its semi-ruggedness.

A black protective rubber surrounds three sides of the ICECARE-07, giving protection from harsh work environments.

IP 64 Rating

Dust tight and protected against water splashed against the component from any direction

1.2M Drop Test

Passed the 1.2M drop test on all sides 26 times

Operating Temperature -10°C ~ 40°C

It can be operated under a wide range of temperatures

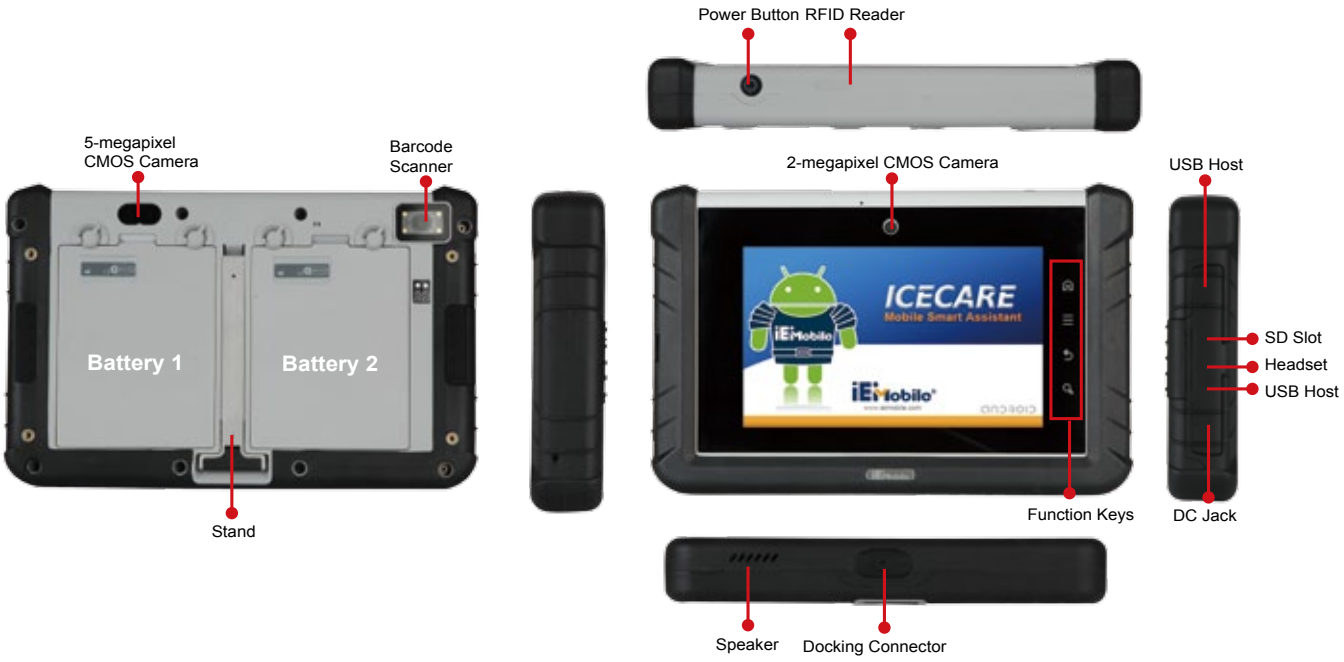
Storage Temperature -10°C ~ 60°C

It can be stored under extreme temperatures

Drop Survival
Protection against accidental drops.

IP Grade
Protection against dust and water splash.

Operating Temperature
Protection against extreme temperatures.



Specifications

Model	ICECARE-07	
Display	LCD Size	7" TFT LCD
	Brightness (cd/m²)	500 cd/m²
	Max. Resolution	800 (H) x 480 (V)
	Viewing Angle	60/70/70/70 Deg.
	Touch Screen	Projected capacitive type
System	CPU	TI Sitara™ AM3715 1GHz
	OS	Android 4.1.2
	Memory	4GB eMMC Flash + 512MB SDRAM
	Storage	SD Slot
Communication	Wireless LAN	Wi-Fi 802.11b/g/n
	Bluetooth	Bluetooth 4.0
	Modem	HSUPA/GPRS/GSM
	GPS	GPS with internal antenna
	RFID	HF RFID ISO 14443A (Mifare) ISO 18092 (Felica) ISO 15693 NFC
Data Collection	Barcode	1D laser/2D imager scan engine
	Camera (Back)	5-megapixel CMOS camera
	Camera (Front)	2-megapixel CMOS camera

Indicators & Buttons	LED Indicators	Power On LED (Blue)
		Wi-Fi enable / disable LED (Green)
		BT enable / disable LED (Blue)
		3.5G enable / disable LED (Green)
	Keys	Power on/off switch
		Reset Key
		4 x Function key (Home / Menu / Back / Search)
I/O Interface	Audio	1 x Headset
		1 x 1.5W speaker
		1 x Digital Mic
	Expansion	2 x USB 2.0
		1 x DC Jack
Power	Power Adapter	19V @ 2.1A @ 40W
	Battery	Dual 11.1V 1880mAh Li-ion battery
Environment	Operating Temperature	-10°C ~ 40°C
	Storage Temperature	-10°C ~ 60°C
	Humidity	5%~95% non-condensing
	Drop Survival	1.2 M
	Environment Protection	IP 64
	Certification	CE / FCC
Physical Characteristics	Dimensions (LxWxH) (mm)	248 x 153 x 36
	Weight	1.1 kg

Ordering Information

Part No.	Description
ICECARE-07-R10	7" TFT-LCD industrial tablet with TI Sitara™ AM3715 CPU, HSUPA/GPRS/GSM, Wi-Fi/Bluetooth, GPS, RFID, 2D/1D barcode, 2M/5M Camera, Android 4.1.2 OS, RoHS
ICECARE-07-1D-R10	7" TFT-LCD industrial tablet with TI Sitara™ AM3715 CPU, Wi-Fi/Bluetooth, 1D barcode, 2M/5M Camera, Android 4.1.2 OS, RoHS

Packing List

Item	Part No.	Q'ty
Battery Pack	31603-000016-RS	1
Power Adapter	63040-290040-000-RS	1
X type hand Strap	47005-003900-00-RS	1
Strap	46035-000400-RS	1

Model Variations

Part No.	WiFi	Bluetooth	Modem	GPS	Barcode	RFID
ICECARE-07-R10	802.11b/g/n	Ver. 4.0	HSUPA/GPRS/GSM	GPS	1D/2D	HF RFID
ICECARE-07-1D-R10	802.11b/g/n	Ver. 4.0	N/A	N/A	1D	N/A

ICECARE-10W New

Mobile Sales Assistant

- 10.1” TFT LCD with resistive touch
- Intel® Atom™ N2800 1.86GHz processor
- Powered by Windows® Embedded Standard 7 P
- Built-in Bluetooth and Wi-Fi
- Built-in smart card reader and magnetic stripe card reader
- Optional 2D barcode reader, 13.56MHz RFID reader

Applications

The ICECARE-10W is designed to suit the hospitality industry, specifically for restaurant, hotel, and retail applications. Powered by the Intel® Atom™ N2800 processor and Windows® Embedded Standard 7 operating system, the ICECARE-10W is integrated with all the functions that a traditional fixed POS system has – a barcode reader, an RFID reader, a smart card reader, and a magnetic stripe card reader. It offers an all-in-one mobile solution for services that are looking for a stylish yet durable device.

Retail Store Management

Hotel Registration System

Restaurant Table Order Management

Drive-through (Fast Food)

Hybrid Card Reader

The ICECARE-10W comes integrated with a smart card reader and a magnetic stripe card reader for payment and identification purposes.

• Magnetic Stripe Reader (MSR) (optional)

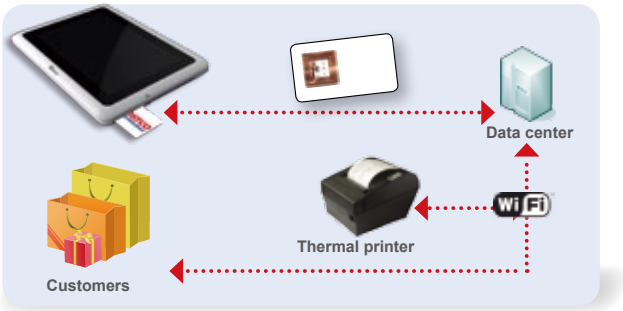
EIA/TIA-232 Compliant
Card Speed 3 to 60 in/s (7.6 to 152.4 cm/s) -Reads single, dual or triple track
ISO 7811 Conformance (AGC (Automatic Gain Control) – Reads cards from 30% - 200% of ISO 7811 amplitude standard
9600 bps, 8 Data Bits, No Parity, 1 Stop Bit
Support HW encryption

• Smart Card Reader (SCR) (optional)

EMV V4.1 Level 1 Compliant
Supports ISO 7816 T=0, T=1 Smart Card. (Supports commonly used memory card.)
Card Interface ISO 7816 part 1, 2 and 3 Compliant
Card Interface Communication Speed up to 115200 bps

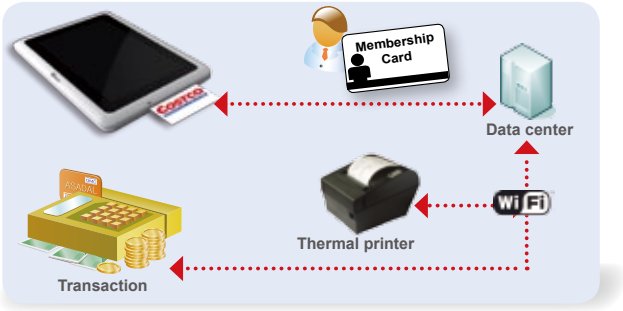
Smart Card Reader Application:

Smart cards utilize embedded computer chip technology to store and transact data between users. Stored data can range from anything associated with either value or information or both. Smart card systems offer great convenience and security to any transaction. Today, these systems are seen throughout in key applications including loyalty programs, personal identification verification, and payment.



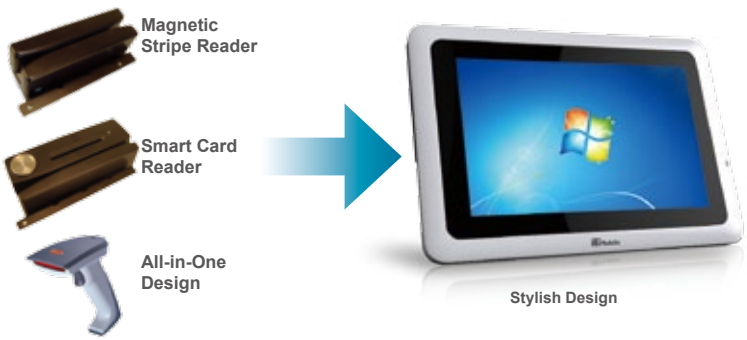
Magnetic Stripe Card Reader Application:

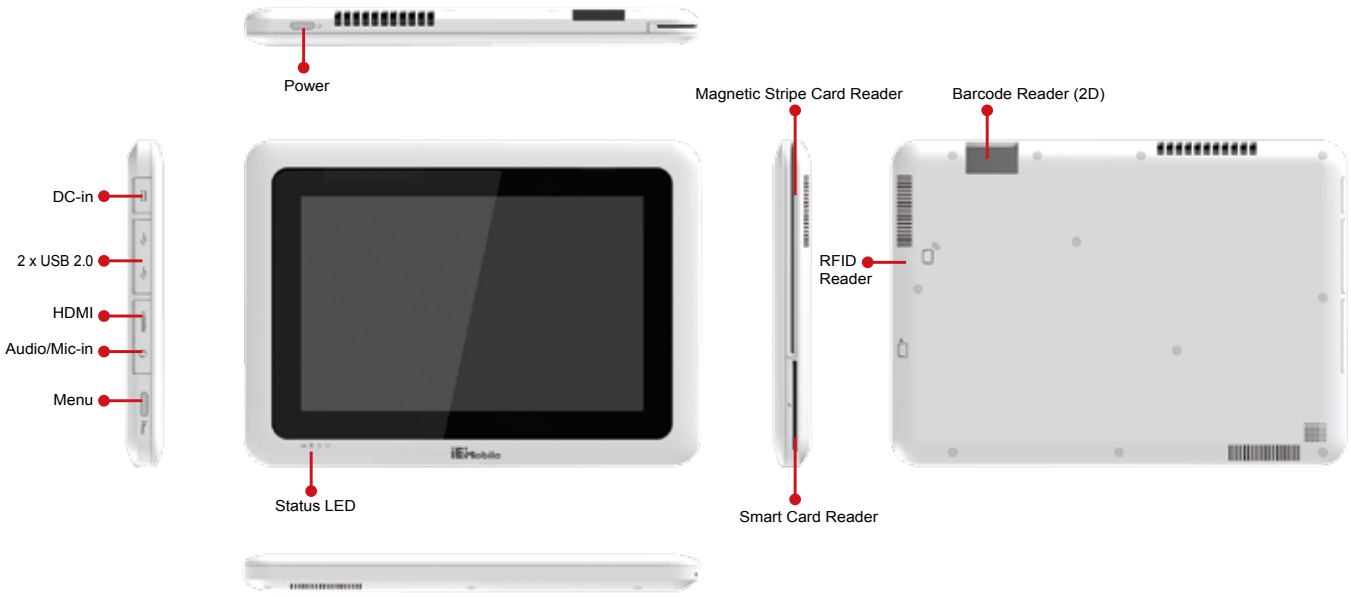
The information contained on the magnetic stripe is obtained by physical contact and swiping past a magnetic reading head in the magnetic stripe card reader. Magnetic stripe card systems are used in many important applications such as payment, loyalty programs, and personal identification verification.



Stylish All-in-One Mobile Point-of-Service Design

The ICECARE-10W is a one-of-its-kind tablet PC. It offers a range of functions that a traditional fixed POS system has, such as the barcode reader, magnetic stripe card reader, and smart card reader. In addition, it is also stylishly designed to suit application contexts that place great importance on aesthetics. For example, such as those businesses in the fashion and hospitality industries.





Specifications

Model		ICECARE-10W
Display	LCD Size	10.1" TFT LCD
	Brightness (cd/m²)	250
	Max. Resolution (HxV)	1280 x 800
	Viewing Angle	75/75/75/70
	Touch Screen	Resistive type
System	CPU	Intel® Atom™ N2800 1.86GHz
	OS	Windows Embedded Standard 7 P
	Memory	On-board 32 GB DDR3
	Storage	Built-in 32GB mSATA
Communication	Wireless LAN	802.11b/g/n
	Bluetooth	Bluetooth v3.0
Data Collection	Barcode	1D/2D imager scan engine (optional)
	RFID	13.56MHz RFID supports ISO 14443A/B (Mifare, Felica)
Indicators & Buttons	Keys	1 x Power button 1 x IEI menu
	LED Indicators	Battery Charging/Peripheral Device/ Storage/Wireless

I/O Interface	Audio	1 x 1.5W Speaker
	USB	2 x USB2.0
	Audio	1 x Audio/Mic-in
	Micro HDMI	1 x Micro HDMI
	Expansions	Smart Card Reader (option)
		Magnetic Stripe Reader (option)
Power	Power Adapter	Input AC: 100~240V Output DC: 19V / 2.1A
	Battery	7.4V 7400mAh
Environment	Operating Temperature	0°C~40°C
	Storage Temperature	-20°C~60°C
	Humidity	5%~95%, non-condensing
	Environmental Protection	IP 54 compliant front panel
	Certification	CE / FCC
Physical	Dimensions (LxWxH) (mm)	290 x 206.5 x 22.5
	Weight	1.1 kg

Packing List

Item	Part No.	Q'ty
Power Adapter	63040-290040-000-RS	1

Ordering Information

Part No.	Description
ICECARE-10W-R10	Intel® Atom™ N2800 1.86GHz CPU, Resistive Multi-Touch, 4GB RAM, 32GB SSD, 802.11b/g/n, Bluetooth, 1D/2D Barcode, MSR, SCR, RFID, WS7P, RoHS
ICECARE-10W-ET-R10	Intel® Atom™ N2800 1.86GHz CPU, Resistive Multi-Touch, 4GB RAM, 32GB SSD, 802.11b/g/n, Bluetooth, RFID, WS7P, RoHS

Model Variations

Part No.	Touch	Wireless	Bluetooth	MSR	SCR	Barcode	RFID
ICECARE-10W-R10	Resistive Touch	802.11b/g/n	Ver. 2.1	Yes	Yes	Yes	Yes
ICECARE-10W-ET-R10	Resistive Touch	802.11b/g/n	Ver. 2.1	N/A	N/A	N/A	Yes

ICELOG New

Mobile Elite Manager

- 7" 250 cd/m² TFT LCD with capacitive touchscreen
- Freescale iMX6 Cortex A9 CPU
- Powered by Android 4.2 OS
- Bluetooth, Wi-Fi, and optional 3.5G with GPS
- 5-megapixel CMOS rear camera
- Optional NFC or UHF RFID Reader

3.75G/HSUPA | Bluetooth | Wi-Fi | GPS | Camera | Touchscreen | NFC

The ICELOG Mobile Elite Manager is designed with advanced communication functions that enhance mobility for users in different industries. Featuring optional NFC and UHF RFID readers, and integrated with a range of wireless functions, this tablet PC allows easy and convenient transfer of information and payments. Targeted for mobility requirements in the workplace or at home, this is an ultimate device for applications such as:

- Home Automation
- Enterprise Mobility
- Retail Management
- Hospitality Service
- Field Service

Home Automation

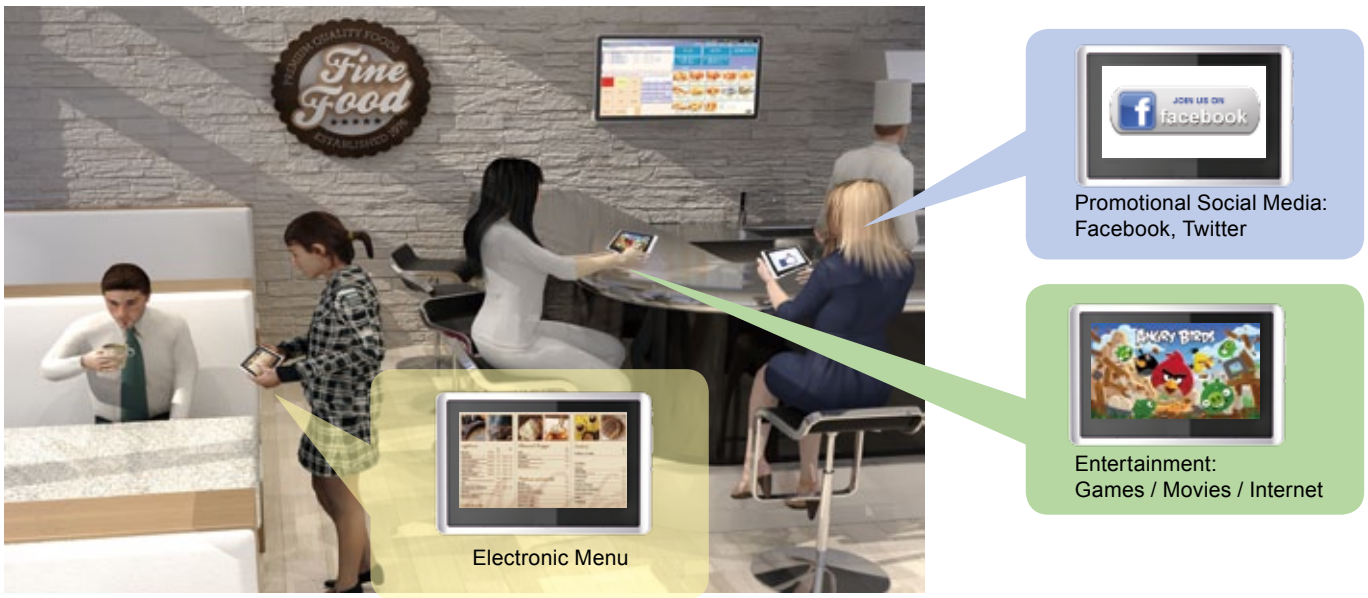
Enterprise Mobility

Order Management

Retail Store Management

Stylish Light-Industrial Design

Consumer-type tablet PCs often lack the hard structure design to withstand tough environments. On the contrary, fully ruggedized tablet PCs that meet the tough requirements are often bulky and do not suit some application contexts such as those in hospitality and fashion industries that place high emphasis on aesthetics. The ICELOG Mobile Elite Manager features the best of both worlds, providing a stylish light-industrial design that not only suits elegant and chic environments, but also offers the durability that vertical market applications require.



Optional Advanced RFID Technology

Near Field Communication (NFC)

The Near Field Communication (NFC) extends on the RFID technology, and utilizes the 13.56MHz frequency to communicate and exchange data between devices which are in close proximity (less than 10cm) to each other. Popular applications include payment, gaming, and social networking (e.g. mobile gaming and device-to-device communication).

Cashless Payment

Identification

Device-to-device Communication

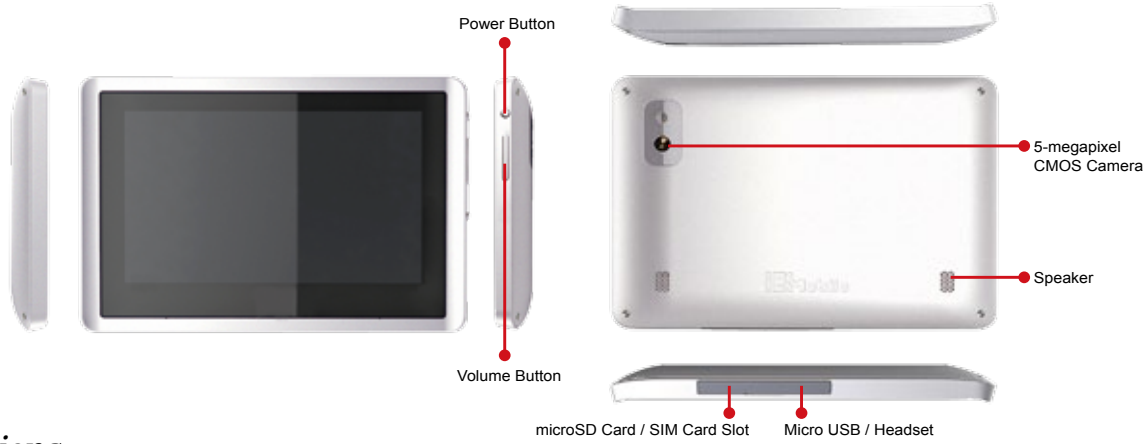
UHF RFID Reader

The certified 990MHz UHF RFID reader automates data capture in vertical market applications such as warehouse management, to improve data accuracy, productivity, and business performance.

Vehicle Identification
Verify and identify vehicle transponders.

Multiple Item Identification
Read multiple items at once, saving time and effort.

Long Range Reading
Read tags from a long distance.



Specifications

Model		ICELOG-07-A9
Display	LCD Size	7" TFT LCD
	Brightness (cd/m²)	250 cd/m²
	Max Resolution (HxV)	1024 x 600
	Viewing Angle	170° / 170°
	Touch Screen	Projected capacitive type
System	CPU	Freescale™ i.MX6
	OS	Android 4.2
	Memory	DDR3 1GB
	Storage	iNAND 4/8/16 GB
Communication	Wireless LAN	Wi-Fi 802.11a/b/g/n
	Bluetooth	Bluetooth 4.0
	3G	WCDMA/HSDPA (optional)
	GPS	GPS with internal antenna (optional)
Data Collection	RFID	UHF RFID reader (optional)
	NFC	NFC (optional)
	Camera (Rear)	5-megapixel with flash

Indicators & Buttons	Keys	Power on/off Home Back
I/O Interface	Audio	1 x Headphone
		2 x 1 W speaker
	Expansion	1 x SIM card slot
		1 x Micro USB client
		1 x microSD slot
Power	Power Adapter	5V / 2A
	Battery	3.7V 7400mAh battery
Environment	Operating Temperature	-10°C~40°C
	Storage Temperature	-20°C~60°C
	Humidity	5%~95%, non-condensing
	Drop Survival	0.9 M
	Environmental Protection	IP 54 (front panel only)
	Certification	CE / FCC
Physical	Dimensions (LxWxH) (mm)	205 x 133 x 19
	Weight	0.56 kg

Packing List

Item	Part No.	Q'ty
Power Adapter	63040-330010-000-RS	1
Micro USB Cable	32001-008501-100-RS	1

Ordering Information

Part No.	Description
ICELOG-07-A9-HU-R10	7.0" 250cd/m² XGA Android Tablet with Freescale i.MX6 1GHz, 802.11a/b/g/n Wireless Module, Bluetooth Module, GPS Module, 3G Module, Touch screen, 5-megapixel Camera, 1GB DDR3, Android 4.2 OS, RoHS
ICELOG-07-A9-ET-R10	7.0" 250cd/m² XGA Android Tablet with Freescale i.MX6 1GHz, 802.11a/b/g/n Wireless Module, Bluetooth Module,Touch screen, 5-megapixel Camera, 1GB DDR3, Android 4.2 OS, RoHS

Model Variations

Part No.	Touch	Wireless	Bluetooth	3.75G	GPS	NFC
ICELOG-07-A9-HU-R10	Capacitive touch	802.11a/b/g/n	4.0	Yes	Yes	Yes
ICELOG-07-A9-ET-R10	Capacitive touch	802.11a/b/g/n	4.0	N/A	N/A	N/A

ICE Charger A

New

- Charges extra batteries for the ICE series tablet PC
- 100 V to 240 V AC
- CE/FCC compliant and EMC certified
- Interlocking charging bay design

The ICE Charger A for the IEIMobile ICE series tablet PC is an external bay for charging additional batteries. With its flexible conversion design, the ICE Charger A can charge different battery packs from the ICEFIRE, ICEROCK and ICECARE. In addition, the interlocking 4-bay design allow users to locate charging bays in one location, minimizing the space required. The ICE Charger A is ideal for long work hours, busy work days, and quick recharge requirements.

For ICEFIRE and ICECARE Battery Packs

1. Secure the conversion cover onto the charging dock.

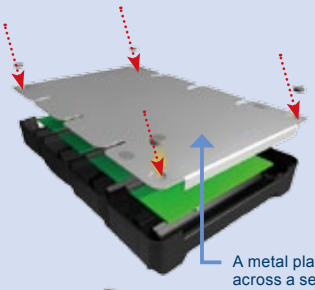
2. Insert and leave the battery in the charging bay to charge

For ICEROCK

1. Insert the battery into the charging bay.

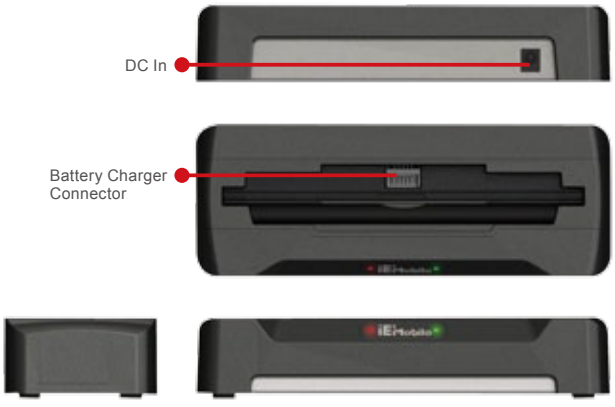
2. Leave the battery in the charging bay to charge the battery

Interlocking Design: ICECHARGER A4



A metal plate is placed across a set of charging bays to interlock them.

Integrate four interlocked charging bays at a single location to make efficient use of space.



Dimensions (mm): 190 (W) x 70 (L) x 35 (H)

Specifications

Model	ICECHARGER
Power Input	19V/4.74A/90W
Indicators	Charging Status LED
Certifications	CE, FCC
Dimensions (W x L x H) (mm)	190 x 70 x 35
Weight	300 g

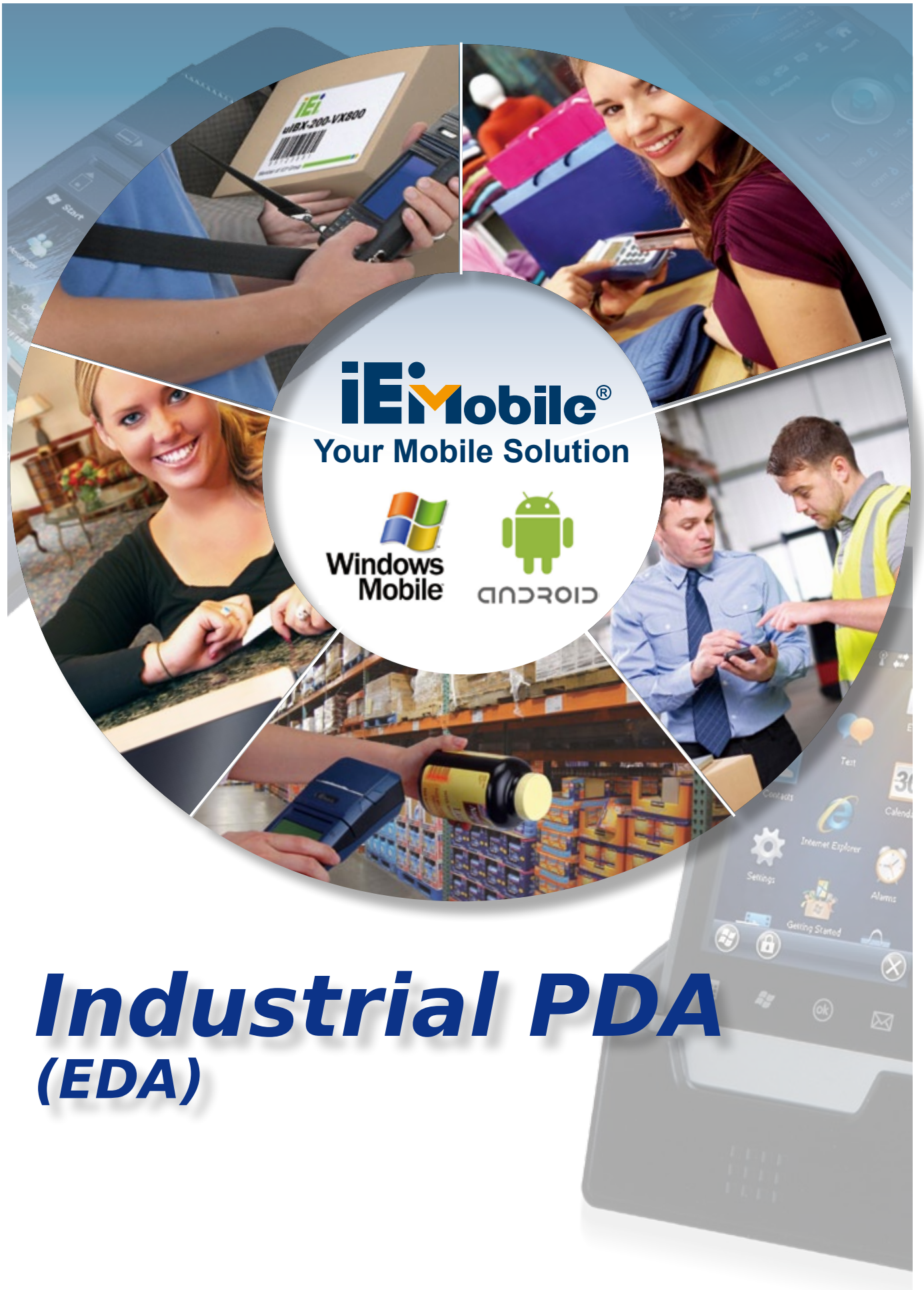
Packing List

Item	Part No.	Q'ty
ICECHARGER A1	ICECHARGER-A1-R10	1
ICECHARGER A4	ICECHARGER-A4-R10	1

Ordering Information

Part No.	Description
ICECHARGER-A1-R10	ICE series charger with single charging bay
ICECHARGER-A4-R10	ICE series charger with four charging bays

iEiMobile®



Industrial PDA
(EDA)

Windows® Embedded Handheld 6.5

Windows® Embedded Handheld 6.5 is an operating system designed for use in mobile and handheld devices such as smartphones. As part of the Windows CE family, it can be considered as a scale-down version of the desktop Windows operating system that offers a similar Windows experience on small mobile devices.

Emphasis on Touch Control

Windows® Embedded Handheld 6.5 was introduced in February 2009. Carrying popular applications such as Microsoft® Office, Windows Media Player, Internet Explorer and Outlook mail client, it featurs a revamped, touch-optimized user interface.

Cloud-Based Service Integration

Windows® Embedded Handheld 6.5 offers a free on-line backup and cloud-syncing service called “My Phone” Using “ the My Phone” service to link with Windows Live ID, the users can communicate with the Cloud, so that data is backed up and available online.

Direct access to “Windows Marketplace” - Microsoft® mobile app store - is another key feature of Windows® Embedded Handheld 6.5. From the Windows Marketplace, a vast array of third-party applications can be downloaded to the Windows® Embedded Handheld 6.5 devices.

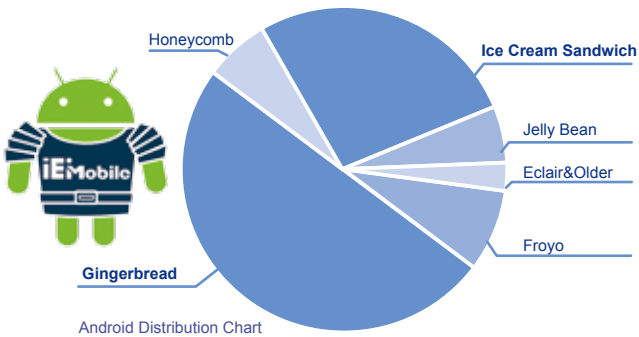
Focus On Enterprise Market

Windows® Embedded Handheld 6.5 is a new solution for the enterprise handheld devices. It runs on an array of form factors, including touch-screen devices with bar-code readers, RFID readers, and interchangeable peripherals. This end-to-end platform provides the connectivity technologies, device management and security infrastructure, and application compatibility across devices necessary to meet the mobile computing needs of the enterprise.

Android Operating System

Android is a Linux-based operating system specifically designed for mobile devices such as handhelds and tablet PCs. This open-source platform is known for its user-friendly interface and the online APP market – Google Play. Main features include:

- Android is free and decreases cost of adoption
- Open source platform cultivates newer ideas and designs
- Open for customization enhances application flexibility
- Huge ecosystem increases support



Android Distribution Chart
(Source: Android Open Source Project, Dec 3, 2012)

Android 4.1 and Above

Android was unveiled in 2007 along with the founding of the Open Handset Alliance: a consortium of hardware, software, and telecommunication companies devoted to advancing open standards for mobile devices. The first Android-powered phone was sold in October 2008; and since then, newer new versions have been introduced every year. Currently, the latest version is the Jelly Bean (V.4.1 and above).

The Jelly Bean (V.4.1) offers the following advanced features:

- Optimized for both tablets and smartphones
- Navigation buttons available as soft keys
- Enhanced function of switching between applications
- New function to dismiss individual notifications
- New feature ‘Face Unlock’ allows users to unlock home screen by face recognition
- Enhanced camera function with continuous focus, zero shutter lag exposure, and decreased shot-to-shot speed
- New Android ‘Beam’ feature

Industrial PDA (EDA)

iEiMobile®

New

Model		MODAT-100	MODAT-200	MODAT-328	MODAT-335	MODAT-335A
Display	LCD Size	3.5" TFT LCD (Sunlight Readable)	3.5" TFT LCD (Sunlight Readable)	2.8" TFT LCD	3.5" TFT LCD (Sunlight Readable)	3.5" TFT LCD (Sunlight Readable)
	Brightness (cd/m²)	190 cd/m²	250 cd/m²	240 cd/m²	190 cd/m²	190 cd/m²
	Max Resolution	240(H) x 320(V) QVGA	240(H) x 320(V) QVGA	240(H) x 320(V) QVGA	240(H) x 320(V) QVGA	240(H) x 320(V) QVGA
	Viewing Angle	80/80/80/80 Deg.	80/80/80/80 Deg.	70/50/70/70 Deg.	80/80/80/80 Deg.	80/80/80/80 Deg.
	Touch Screen	4-wire resistive type touch	4-wire resistive type touch	4-wire resistive type touch	4-wire resistive type touch	4-wire resistive type touch
System	CPU	Marvell® PXA 310 624MHz	Samsung® 6410 ARM11 667MHz	Marvell® PXA 310 624MHz	Marvell® PXA 310 624MHz	TI Sitara AM3715 1GHz
	Operating System	Microsof® Windows® Embedded Handheld 6.5	Microsof® Windows® Mobile 6.5	Microsof® Windows® Embedded Handheld 6.5	Microsof® Windows® Embedded Handheld 6.5	Android 4.1.2
	Memory	128MB Flash + 256MB SDRAM	128MB Flash + 128MB SDRAM	256MB Flash + 128 MB SDRAM	256MB Flash + 256MB SDRAM	4GB eMMC + 512MB SDRAM
	Storage	microSD Slot	microSD Slot	microSD Slot	microSD Slot	microSD Slot
Communication	Wi-Fi	Wi-Fi 802.11b/g	Wi-Fi 802.11b/g	Wi-Fi 802.11b/g	Wi-Fi 802.11b/g	Wi-Fi 802.11a/b/g/n
	Bluetooth	Bluetooth 2.1 + EDR	Bluetooth 2.1 + EDR	Bluetooth 2.1 + EDR	Bluetooth 2.1+ EDR	Bluetooth 4.0
	Modem	WCDMA/HSDPA	N/A	N/A	WCDMA/HSDPA or GPRS	WCDMA/HSDPA or GPRS
	GPS	GPS w/internal antenna	N/A	N/A	GPS w/internal antenna	GPS w/internal antenna
Data Collection	RFID	13.56 MHz RFID support ISO 14443A (Mifare) ISO 14443B (Felica) ISO 15693 ISO 18092 NFC	N/A	13.56 MHz RFID support ISO 14443A (Mifare) ISO 14443B (Felica) ISO 15693 ISO 18092 NFC	13.56 MHz RFID support ISO 15693 and ISO 14443A/B compliant UHF (optional): EPC Global Class1 Gen2 support ISO/IEC 18000-6 Type C and at least 3m reading distance	13.56 MHz RFID support ISO 15693 and 14443A/B compliant
	Barcode	1D Laser Scan Engine	N/A	1D/2D imager scan engine	1D/2D imager scan engine	1D Laser/2D imager scan engine
	Camera	3-megapixel CMOS camera with LED flash light	N/A	3-megapixel CMOS camera with LED flash light	3-megapixel CMOS camera with LED flash light	3-megapixelCMOS camera with LED flash light
Indicators & Buttons	LED Indicators	Charging status LED HSDPA status LED	System/Battery charging status LED Wi-Fi/Bluetooth enable/ disable LED	Charging status LED Wi-Fi/Bluetooth enable/ disable LED	Charging status LED Wi-Fi enable/disable LED 3.5G/2.5G enable/disable LED	Charging status LED Wi-Fi enable/disable LED 3.5G/2.5G enable/disable LED
	Hot Keys	2 x Barcode key	1 x Rollng Key	2 x Barcode key 1 x Camera key	2 x Barcode key 1 x Camera key	2 x Barcode key 1 x Camera key
I/O Interface	Audio	1 x Speaker	1 x Speaker	1 x Speaker	1 x Speaker	1 x Speaker
		1 x Headset / Built-in Mic-in	1 x Headset / Built-in Mic-in	1 x Headset / Built-in Mic-in	1 x Headset / Built-in Mic-in	1 x Headset / Built-in Mic-in
	Expansion	16-pin connector (RS232 / battery charging / USB Host / USB Client)	1 x Mini USB Host 1.1/Client	1 x Mini USB Client 2.0	1 x Mini USB Client 2.0	1 x Mini USB Client 2.0
		2" thermal printer	N/A	16-pin connector (RS-232/ USB Host/USB Client)	16-pin connector (RS-232/ USB Host/USB Client)	16-pin connector (RS-232 / USB Host/USB Client)
		Smart card reader support	N/A	N/A	N/A	N/A
		Magnetic Stripe Reader Support	N/A	N/A	N/A	N/A
Power	Power Adapter	Input: VAC:100V ~ 240V Output: 12V/3A	Input: 100 V AC to 240 V AC ~ 50-60Hz 0.2A Output: 5V / 1A	Input: 100V AC to 240V AC ~ 50-60Hz 0.2A Output: 5V / 2.1A	Input: 100V AC to 240V AC ~ 50-60Hz 0.2A Output : 5V / 2.1A	Input: 100V AC to 240V AC ~ 50-60Hz 0.2A Output : 5V / 2.1A
	Battery	7.4V 1880 mAh battery	3.7V 1800 mAh battery (built-in non swappable)	3.7V 1880 mAh battery	3.7V 3000 mAh battery	3.7V 3000 mAh battery
Enviroment	Operating Temperature	0˚C ~ 50˚C	-10˚C ~ 50˚C	-10˚C ~ 50˚C	-10˚C ~ 50˚C	-10˚C ~ 50˚C
	Storage Temperature	-20˚C ~ 70˚C	-20˚C ~ 70˚C	-20˚C ~ 60˚C	-20˚C ~ 60˚C	-20˚C ~ 60˚C
	Humidity	5%~95% non-condensing	5%~95% non-condensing	5%~95% non-condensing	5%~90% non-condensing	5%~95% non-condensing
	Drop Survival	1.2M	1.2M	1.5M	1.5M	1.5M
	Environmental Protection	IP 54 (Front Panel Only)	IP 54	IP 54 (Front Panel Only)	IP 54	IP 54
	Certification	CE / FCC	CE / FCC / BSMI	CE / FCC	CE / FCC	CE / FCC
Physical Characteristics	Dimensions (LxWxH) (mm)	230 x 84 x 54	125 x 74 x 18.7	172 x 55 x 31	218 x 81 x 46	218.5 x 81 x 46
	Weight	546 g	200 g	245 g	405 g	405 g

MODAT-100

Mobile POS Terminal

- 3.5” TFT sunlight readable LCD touch screen
- Marvell® PXA 310 624 MHz CPU
- Windows® Embedded Handheld 6.5 pre-installed
- Built-in 32-channel GPS receiver
- Built-in smart card reader, magnetic stripe card reader and 2” thermal printer
- 1D laser barcode/optional 2D imager barcode reader for data collection
- Bluetooth, Wi-Fi and 3.5G/HSDPA wireless communication

EMV Level 1

3.5G/HSUPA | Bluetooth | Wi-Fi | Camera | Printer | RS-232 | USB 2.0 | 1D Barcode Scanner | SCR | MSR | Windows Embedded Handheld

Point-of-Service Application

Standard Point-of-Service(POS) features, such as smart card readers, magnetic stripe card readers and thermal printers come integrated for an all-in-one mobile solution. Equipped with 1D laser barcode and 3 megapixels camera, the MODAT-100 can capture data and images via a built-in high performance wireless communication module. The MODAT-100 offers mobility and flexibility that promises to streamline workflow and enhance productivity.

Highly Integrated Mobile Point-Of-Service Design

Most enterprise PDAs only come with Bluetooth, Wi-Fi or 3G. The MODAT-100 not only has built-in wireless communication function, but also has integrated peripherals serving as your all-in-one Point-of-Service mobile assistant. The MODAT-100 increases the mobility of your field force.

Highly integrated

Hybrid Card Reader

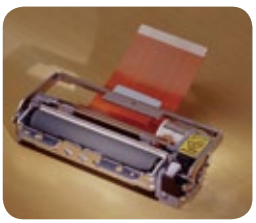
• Smart Card Reader

EMV Level 1

EMV V4.1 Level 1 Compliant
Supports ISO 7816 T=0, T=1 Smart Card. (Supports commonly used memory card.)
Card Interface ISO 7816 part 1,2 and 3 Compliant
Card Interface Communication Speed up to 115200 bps

• Magnetic Stripe Reader

EIA/TIA-232 Compliant
Card Speed: 3 to 60 in/s (7.6 to 152.4 cm/s) Reads single, dual or triple track
ISO 7811 Conformance (AGC (Automatic Gain Control) – Reads cards from 30% - 200% of ISO 7811 amplitude standard)
9600 bps, 8 Data Bits, No Parity, 1 Stop Bit



IEIMobile MODAT-100 Utility-SCR and MSR Diagnostic Software

Payment System - **SCR**

SCR diagnostic software allows the user to initiate insert/remove sequences and perform read/ write function tests all in one UI screen. During testing, current card reader and processing commands/ responses are displayed.

Membership Control - **MSR**

Track 1 and Track 2 data such as credit card holder name, account number of the bank, expiration date or service code can be displayed on the UI screen simultaneously.

SCR Application

MSR Application

I/O Interface

- **microSD**
  You can install applications on your MODAT-100 by using:
  • Microsoft® ActiveSync. ActiveSync lets you transfer files, synchronize files, remotely debug, and perform other device management activities. ActiveSync is a free application available from the Microsoft® web site

- **SIM Card**
  Install a SIM card for 3.5G data transmssion

- **SAM Card**
  SAM (Security Authentication Module) card protects financial data transmission

- **16-pin Connector**
  16-pin docking cable

USB Host Application for Intelligent Electric Testing
Connect the MODAT-100 to an electric testing equipment and transmit the data via USB Host.

USB Client Application
Connect the MODAT-100 to a computer and sync the data

RS-232 Application for Mobile Temperature Test
The testing equipment connected via RS-232 allows field workers to test temperatures. The MODAT-100 detects errors and displays them on screen, allowing workers to address issues on-site.

Parking Ticket Case Study

Background

Parking management has always been a major concern in big cities, particularly in popular areas and business districts where parking lots are often full throughout the day. In addition to limited availability, city parking has always been quite pricy. Due to these reasons, many citizens stick to curb parking because of its convenience and availability.

Challenge

Once a parking ticket is issued and placed on a car's windshield, the ticketing officer saves a copy for recording purposes. At the end of a day, the ticketing officer submits these copies to be entered into the database. This process is done manually with someone reading the handwritten copies and entering each piece of data one by one. Not only is this extremely labor intensive, but the system is also vulnerable to errors especially in cases where handwritings are difficult to read. On busy days, large volumes of tickets may take 2 to 3 days to be entered into the database, which delays the payment process.

Due to these limitations of the manual ticketing system, a local government in decided that it was time to automate its ticket issuing system.

Solution

With a sunlight readable screen and ergonomic design, the MODAT-100 offers an all-in-one solution for ticketing officers on the road. The ticketing officer uses a stylus to select items from a drop-down menu and enter information conveniently through a keyboard on the screen. Once related information has been entered, the ticket is generated automatically by the 2" thermal printer integrated in the MODAT-100. At the same time, this information is sent to the back office database through 3G wireless.

Manual ticketing system

Automated ticketing system with MODAT-100

Benefits

- Sunlight readable screen is extremely suitable for outdoor applications.
- Resistive touch screen with stylus allow information to be entered electronically.
- 2" thermal printer enables highly legible tickets to be printed immediately.
- Information can be transmitted to the back office system through 3G wireless and be recorded in the database.
- Ticket payment can be processed more efficiently.

Specifications

Model		MODAT-100
Display	LCD Size	3.5" TFT LCD (Sunlight Readable)
	Brightness (cd/m²)	190 cd/m²
	Max Resolution	240 x 320 pixels QVGA
	Viewing Angle	80/80/80/80 Deg.
	Touch Screen	4-Wire Resistive Type Touch
System	CPU	Marvell® PXA 310 624 MHz
	Operation System	Windows® Embedded Handheld 6.5
	Memory	128 MB Flash + 256 MB SDRAM
	Storage	microSD Slot
Communication	Wireless LAN	Wi-Fi 802.11b/g
	Bluetooth	Bluetooth 2.1 + EDR
	3.5G	WCDMA/HSDPA
	GPS	GPS w/internal antenna
Data Collection	Barcode	Built-in 1D Laser Engine and optional 2D imager Engine
	Camera	3-megapixel CMOS Camera with LED Flash Light
Indicators & Buttons	LED Indicators	Charging/Barcode status LED HSDPA status LED
	Hot Keys	2 x Barcode Trigger
I/O Interface	Audio	1 x Headset and 1 x Speaker
	Expansion	16-pin connector (RS-232 / battery charging/ OTG-Host/ OTG-Client)
		2" Thermal Printer
		Smart Card Reader Support
		Magnetic Stripe Reader Support
Power	Power Adapter	Input: VAC:90 V~264 V Output: 12 V/3 A
	Battery	7.4V 1880 mAh battery
Environment	Operating Temperature	0ºC ~ 50ºC
	Storage Temperature	-20ºC ~ 70ºC
	Humidity	5%~95%, non-condensing
	Drop Survival	1.2 M
	Environmental Protection	IP 54 (Front Panel only)
	Certification	CE, FCC
Physical Characteristics	Dimensions (LxWxH) (mm)	230 x 84 x 54
	Weight	546 g

Optional Accessory List

Item	Part No.	Description
Cradle	MODAT-100-CR01-R10	Charging cradle integrated one charging bay along with USB Host, USB Client and RS-232 I/0 ports
16-pin Cable	32024-001500-100-RS	16-pin cable connected to USB Host, USB Client and RS-232
Battery Pack	31603-000014-RS	7.4V 1880 mAh battery
Carrying Case	7Z000-MODAT100POUCH-RS	Black, professional protection case with shutter strap for MODAT-100
Car Holder	19B00-000229-00-RS	MODAT-100 car holder with stand
Thermal Printer Paper	5Z000-000165-RS	One thermal paper; 57MM*3.1CM*0.079TMM;
	19N43-128001-00-00-RS	Five thermal paper per roll
microSD Card	79D00-G001-006-RS	1GB microSD card
	79D00-G002-005-RS	2GB microSD card

Support Function

Part Number	Barcode	RFID	MSR	SCR
MODAT-100-RFID-WB65-En	1D Barcode Scanner	13.56MHz supports ISO 14443 A/B & ISO 15693	N/A	Yes
MODAT-100-WB65-En	1D Barcode Scanner	N/A	Yes	Yes
MODAT-100-2D-WB65-En	1D/2D Barcode Scanner	N/A	Yes	Yes

Packing List

Item	Part No.	Q'ty	Description
Battery Pack	31603-000014-RS	1	7.4V 1880 mAh battery
Carrying Case	7Z000-MODAT100POUCH-RS	1	Black, professional protection case with shutter strap for MODAT-100
Power Adapter	63000-FSP036RAB613-RS	1	FSP036-RAB613; VAC: 90V~264V; 12V/3A; 36W; PLUG Ψ1.35/Ψ3.5/ NONE LOCK/LENGTH: 9.5MM; 1500MM; FSP
Stylus	7Z000-MODAT100STYLUS-RS	1	
Headset	30900-000001-RS	1	

Battery Pack

Stylus

Power Adapter

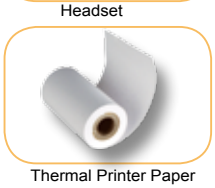
Carrying Case

Cradle

Headset

16-pin Cable

Car Holder


Thermal Printer Paper

Ordering Information

Part No.	Description
MODAT-100-RFID-WB65-En	3.5" TFT-LCD 190 cd/m² QVGA Enterprise PDA with Marvell® PXA 310 624MHz CPU, HSDPA, 802.11b/g Wireless, Bluetooth,1D barcode scanner, RFID, Smart Card Reader, Windows® Embedded Handheld 6.5 OS, RoHS
MODAT-100-WB65-En	3.5" TFT-LCD 190 cd/m² QVGA Enterprise PDA with Marvell® PXA 310 624MHz CPU, HSDPA, 802.11b/g Wireless, Bluetooth, 1D barcode scanner, Smart Card Reader, Magnetic Stripe Reader, Windows® Embedded Handheld 6.5 OS, RoHS
MODAT-100-2D-WB65-En	3.5" TFT-LCD 190 cd/m² QVGA Enterprise PDA with Marvell® PXA 310 624MHz CPU, HSDPA, 802.11b/g Wireless, Bluetooth, 1D/2D Imager barcode scanner, Smart Card Reader, Magnetic Stripe Reader, Windows® Embedded Handheld 6.5 OS, RoHS

MODAT-200

Order Entry PDA

- 667 MHz ARM11 CPU
- Built-in Windows® Mobile 6.5 OS/ Windows® CE 6.0 (optional)
- USB 1.1 Host/Client 2.0
- Built-in Wi-Fi and Bluetooth wireless communication
- 3.5” TFT resistive touch screen
- microSD slot

Bluetooth Wi-Fi USB 2.0 SAMSUNG ARM POWERED Windows Mobile

Applications

- Quick Registration
- Inspection
- Table Service
- On-Line Sales

MODAT-200

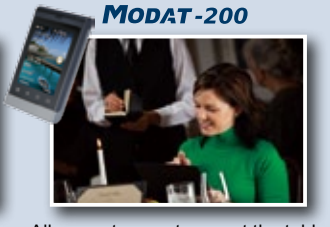
Take orders while customers are waiting in a busy shop or cafe

MODAT-200

Drive-through quick order services

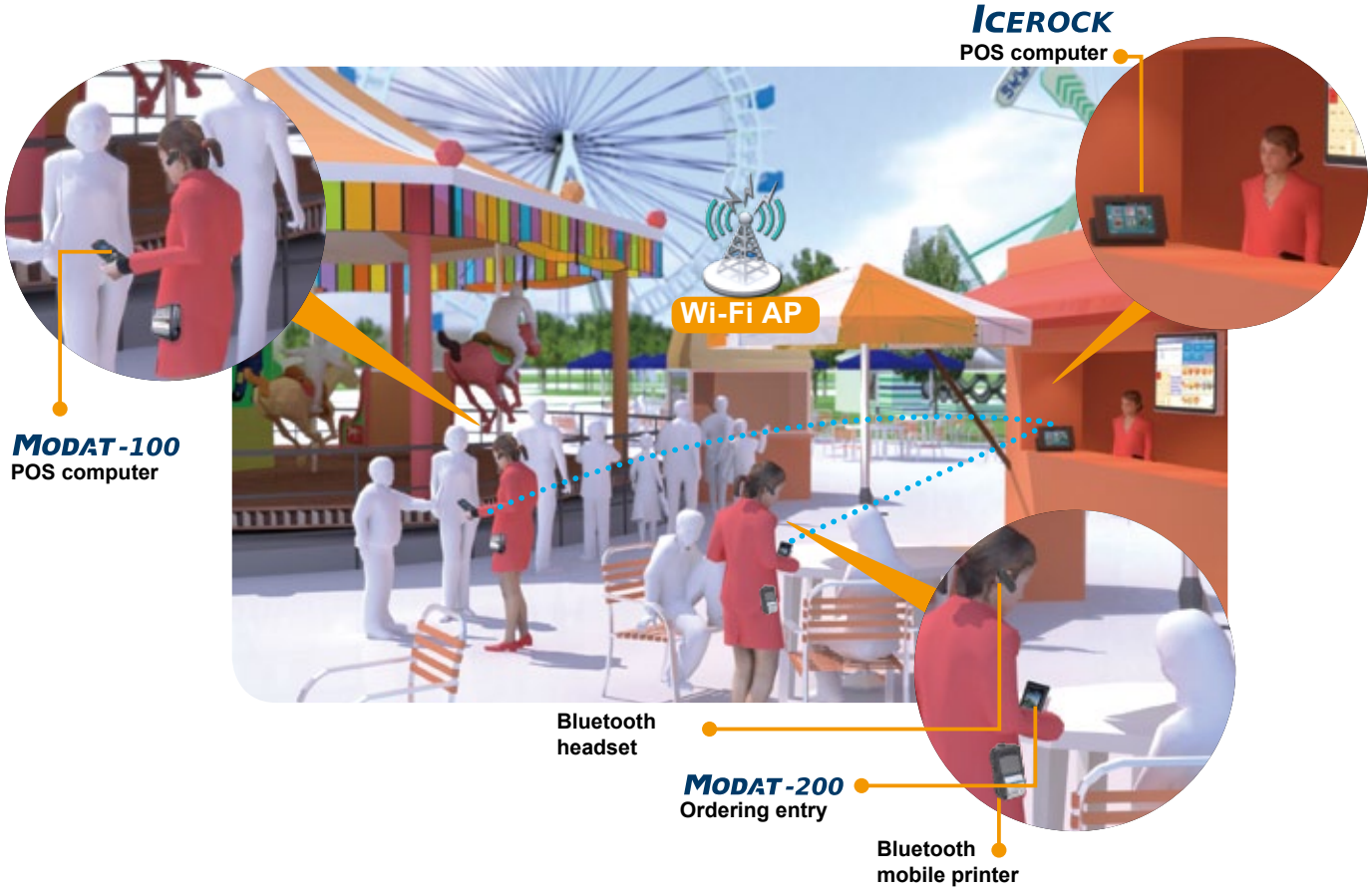
MODAT-200

Check reservations and table status at reception



MODAT-200

Allow customers to pay at the table, receive receipt and give feedback all at once



Hanger
The hanger is designed for optimal flexibility. Wherever there is a hook and hanger, the MODAT-200 can easily be used in various situations.
Stylus
Neck Strap Clip

The Neck Strap Clip is located at the bottom panel to allow the MODAT-200 to be taken up for service at the right side.

Specifications

Model	MODAT-200	
Display	LCD Size	3.5" TFT LCD
	Brightness (cd/m²)	250 cd/m²
	Max. Resolution	240 (H) x 320 (V) QVGA
	Viewing Angle	80/80/80/80 Deg.
	Touch Screen	4-Wire Resistive Type Touch
System	CPU	Samsung® 6410 ARM11 667MHz
	Operating System	Windows® Mobile 6.5 OS
	Memory	128MB Flash + 128MB SDRAM
	Storage	microSD Slot
Communication	Wi-Fi	Wi-Fi 802.11b/g
	Bluetooth	Bluetooth 2.1 + EDR
Indicators & Buttons	LED Indicators	Message/battery/charging status LED Wi-Fi/Bluetooth enable/disable LED
	Hot Keys	1 x Rollng Key
I/O Interface	Audio	1 x Headset and 1 x Speaker
		Built-in Mic-in
	Expansion	1 x Mini USB Host 1.1/Client 2.0
Power	Power Adapter	Input: 100 V AC to 240 V AC ~ 50-60Hz 0.2A Output: 5V/1A
	Battery	3.7V 1800mAh battery (built-in non-swappable)
Environment	Operating Temperature	-10˚C ~ 50˚C
	Storage Temperature	-20˚C ~ 70˚C
	Humidity	5%~95%, non-condensing
	Drop Survival	1.5M
	Environmental Protection	IP 54
	Certification	CE, FCC, BSMI
Physical Characteristics	Dimensions (LxWxH) (mm)	125 x 74 x 18
	Weight	200 g

Optional Accessory List

Item	Part No.	Description
Leather Protective Case	7Z000-MODAT200POUCH-RS	Black, professional leather protective case for MODAT-200
AC-DC Adapter	63040-180005-000-RS	Input: 100 V AC to 240 V AC ~ 50-60Hz0.2A Output: 5 V DC, 1 A (Max)
Cradle	MODAT-200-CR01-R10	One to one charging cradle for MODAT-200

Packing List

Item	Part No.	Q'ty
Cradle	MODAT-200-CR01-R10	1
Leather Protective Case	7Z000-MODAT200POUCH-RS	1
USB Cable	32001-000301-100-RS	1
AC-DC Adapter	63040-180005-000-RS	1
Headset	30900-000001-RS	1
Stylus	7Z000-MODAT200STYLUS-RS	1
Hand Strap	7Z000-MODAT200STRAP-RS	1
User's Manual CD ROM	7B000-000548-RS	1

USB Cable

AC-DC Adapter

Headset

Hand Strap

Leather Protective Case

Stylus

Cradle

Ordering Information

Part No.	Description
MODAT-200-CE60-En	3.5" TFT-LCD 250 cd/m² QVGA Enterprise PDA with Samsung® 6410 ARM11 667MHz CPU,802.11b/g Wireless, Bluetooth, Windows CE 6.0 OS, RoHS
MODAT-200-WB65-En	3.5" TFT-LCD 250 cd/m² QVGA Enterprise PDA with Samsung® 6410 ARM11 667MHz CPU,802.11b/g Wireless, Bluetooth, Windows Mobile 6.5 OS, RoHS

MODAT-328

Stocktaking PDA

- 2.8” TFT LCD with resistive touch screen
- Marvell PXA 310 624 MHz CPU
- Built-in Windows® Embedded Handheld 6.5 OS
- Wi-Fi and Bluetooth wireless technology
- 3-megapixel camera with LED flash
- Supports Mifare (ISO 14443A), Felica (ISO 18092) and ISO 15693
- 1D/2D barcode reader
- Optional cradle with RS-232 and USB client port

Bluetooth | Wi-Fi | Camera | RFID | RS-232 | USB 2.0 | 1D Barcode Scanner | 2D Barcode Scanner | Windows Embedded Handheld

Warehouse Management Application

Designed to be an integral part of the warehousing management solution, the MODAT-328 is an all-functional stocktaking PDA with the Marvell PXA310 CPU and Windows® Embedded Handheld 6.5 operating system. It is a light-weight, ergonomic mobile terminal equipped with advanced data acquisition technologies: RFID, 1D/2D barcode reader, and 3-megapixel CMOS camera. Via built-in 802.11b/g Wi-Fi and Bluetooth wireless modules, the MODAT-328 allows quick and easy connection to other peripherals.

Stylish and Ergonomic Design

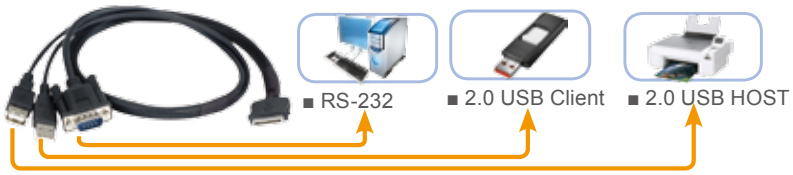
Bringing a stylish and lightweight ergonomic look to the handheld mobile device, the MODAT-328 offers a comfortable grip and ultra portability with a petite size at 190 x 136 x 115mm while ensuring single-handed scanning service.

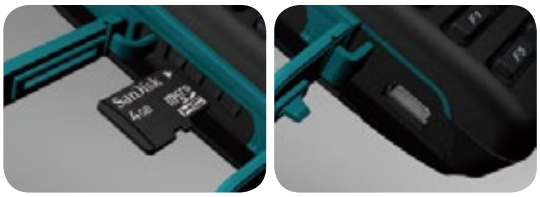
LED Indicators & HOT Keys

- A 2.8" QVGA touch screen and simple user interface allow users user to have easy access to all the relevant informati and applications.
- Shockproof, dustproof, and waterproof in compliance with IP 54.
- The ergonomic and professional keypad is made of wear-resistant PET+SUS and is easy to operate.

I/O Interface

- **microSD:** Users can install applications in the MODAT-328 by using:
  - Microsoft® ActiveSync lets you transfer files, synchronize files, remotely debug, and perform other device management activities. ActiveSync is a free application available from the Microsoft® web site.
  - microSD card
- **Mini USB (OTG):** Expand the storage capacity and peripheral devices
- **16-pin Connector:** 16-pin docking cable





Warehouse Management Case Study

Background

In order to be closer to its supply chain and shorten the delivery cycle for products in the Chinese market, a leading Taiwanese PC hardware manufacturer relocated its production facilities to China. With the increased production output and the demand of the Chinese market, inventory management has become an important topic.

Challenge

Once a finished product exits the production line, it undergoes various processes before it can be shipped to customers. First, the product has to undergo quality check. After, it is passed onto the warehouse for storage. When a purchase order comes in, the product is prepared and sent to the package area for shipment preparations. Each transaction in the process is recorded manually on different sheets of paper, which often lead to errors and inventory miscounts. In the worst case, untimely updates of inventory quantity resulted in order delays. It was time for the manufacturer to automate its inventory system.

Solution

The MODAT-328 is an extremely lightweight PDA especially designed for stock taking. As finished products move in and out of quality control and the warehouse, their barcodes are read by the barcode reader and information is stored into the electronic inventory system. The whereabouts and the quantity of inventory can be known in real time, which greatly shortened the purchase order process. Not only can human errors be reduced but inventory management is more efficient.

Benefits

- Extremely light in weight and convenient to operate.
- Integrated barcode reader for automatic identification of product labels.
- Built-in Wi-Fi to transmit inventory data into database enhances real-time tracking and information transparency.
- 1.5 meter drop protection suits application environment.

Specifications

Model		MODAT-328
Display	LCD Size	2.8" TFT LCD
	Brightness (cd/m²)	240 cd/m²
	Max Resolution	240(H) x 320(V) QVGA
	Viewing Angle	70/50/70/70 Deg.
	Touch Screen	4-wire resistive type touch
System	CPU	Marvell® PXA 310 624MHz
	Operating System	Windows® Embedded Handheld 6.5
	Memory	256 MB Flash + 128 MB SDRAM
	Storage	microSD Slot
Communication	Wi-Fi	Wi-Fi 802.11b/g
	Bluetooth	Bluetooth 2.1 + EDR
Data Collection	RFID	13.56 MHz RFID reader supports ISO15693 and 14443A/B compliant or ISO 14443A and Felica compliant
	Barcode	1D/2D Imager Scan Engine
	Camera	3-megapixel CMOS camera with LED flashlight
Indicators & Buttons	LED Indicators	Charging status LED Wi-Fi / enable/disable LED
	Hot Keys	3 x Barcode key 1 x Camera key
I/O Interface	Audio	1 x Headset and 1 x Speaker
		Built-in Mic-in
	Expansion	1 x Mini USB Client 2.0
Power	Power Adapter	Input: 100 V AC to 240 V AC ~ 50-60Hz 0.2A Output: 5 V/2.1A
	Battery	3.7V 1880 mAh battery
Environment	Operating Temperature	-10°C ~ 50°C
	Storage Temperature	-20°C ~ 60°C
	Humidity	5%~95%, non-condensing
	Drop Survival	1.5M
	Environmental Protection	IP 54 (Front panel)
	Certification	CE, FCC
Physical Characteristics	Dimensions (LxWxH) (mm)	172 x 55 x 31
	Weight	245 g

Packing List

Item	Part No.	Q'ty	Description
Battery Pack	31603-000015-RS	1	3.7V 1880 mAh Battery
Belt Clip Case	7Z000-MODAT-328POUCH-RS	1	Black, MODAT-328 Professional Belt Clip Case
USB Cable	32001-000300-200-RS	1	
AC-DC Adapter	63040-330010-000-RS	1	Vin: 90~264VAC; 10.5W, (NO LOAD 0.1W) Vout: 5VDC; USB;CCL; RoHS
Headset	30900-000001-RS	1	
Stylus	7Z000-6051D0320101-RS	1	
Hand Strap	46035-000300-RS	1	
User's Manual CD ROM	7B000-000755-RS	1	

Optional Accessory List

Item	Part No.	Description
Cradle	MODAT-300-CR01-R10	Charging cradle with USB Client
Battery Pack	31603-000015-RS	3.7V 1880 mAh battery
Battery Pack - L	31603-000017-RS	3.7V 3000 mAh battery (Note: Please confirm if purchasing the Battery Pack - L is necessary or not.)
Belt Clip Case	7Z000-MODAT-328POUCH-RS	Black, MODAT-328 professional belt clip case
16-pin Cable	32024-001500-100-RS	Connects to USB Host, USB Client and RS-232
Battery Pack - L Cover	19N41-209001-00-00-A-RS	The Cover of Battery Pack - L (Note: Please select this cover for the first time purchasing the Battery Pack - L.)

Support Function

Part Number	Wireless	Barcode	RFID
MODAT-328-WB65-En-R11	802.11b/g	1D/2D Barcode Scanner	Mifare (ISO 14443A) Felica (ISO 18092) and ISO 15693
MODAT-328-1D-WB65-En	802.11b/g	1D Barcode Scanner	N/A

Cradle

Belt Clip Case

AC-DC Adapter

USB Cable

Hand Strap

Headset

Battery Pack

Stylus

16-pin Cable

Ordering Information

Part No.	Describtion
MODAT-328-WB65-En-R11	2.8" TFT-LCD 240 cd/m² QVGA Enterprise PDA with Marvell® PXA 310 624MHz CPU, 802.11b/g Wireless, Bluetooth, 1D/2D Barcode Scanner, RFID, 3-megapixel Camera, Windows® Embedded Handheld 6.5 OS, RoHS
MODAT-328-1D-WB65-En	2.8" TFT-LCD 240 cd/m² QVGA Enterprise PDA with Marvell® PXA 310 624MHz CPU, 802.11b/g Wireless, Bluetooth, 1D Barcode Scanner,Windows® Embedded Handheld 6.5 OS, RoHS

MODAT-335

Field Service Terminal

- 3.5” TFT sunlight readable LCD touch screen
- Marvell® PXA 310 624MHz CPU
- Built-in Windows® Embedded Handheld 6.5 OS
- Wi-Fi, Bluetooth and WCDMA/HSDPA or GPRS wireless technology
- Built-in GPS
- 1D Laser/2D Imager Scan Engine and Supports Mifare (ISO 14443A) Felica, ISO 18092 and ISO 15693 RFID reader and 3-megapixel Camera
- Optional Handle Grip
- Optional UHF multiple tag reader supports 3-meter reading distance

3.75G/HSUPA | Bluetooth | Wi-Fi | GPS | RFID | 1D Barcode Scanner | 2D Barcode Scanner | Windows Embedded Handheld

Field Service Applications

The MODAT-335 is a highly integrated terminal designed for the mobile field service workforce. Benefits include:

- Fleet and inventory tracking
- Access to detailed customer and asset records
- Automated service order dispatch
- Remote update of work status
- Capture customer and asset data easily
- Create notifications and service orders on the spot

Track and Locate

Capture and Record

Access and Update

Out-field
WWAN
(GPRS/3G/ HSDPA/WiMAX)

Advanced Optional Accessories

UHF RFID Reader

The communication frequencies used in radio frequency identification (RFID) technology range from 125KHz to 2.45GHz. The MODAT-335 features an optional ultra high frequency (UHF) reader. The MODAT-335:

- Detects a frequency range from 840MHz to 960MHz
- Allows a long reading range
- Is excellent for reading multiple tags
- Carries one 3000 mAh battery inside

Extra 3000 mAh battery can support UHF power consumption, providing longer working hours!

Vehicle Identification
Verify and identify vehicle transponders.

Object or Personnel Tracking
Verify job or order delivery assignment.

Multiple Item Identification
Read multiple items at once, saving time and effort.

Long Range Reading
Read tags from a long distance.

User Friendly Design

Easy to Install and Clip

The clip design makes it easy to fix the UHF pistol on MODAT-335

Easy to switch and convenient to use

The external UHF antenna connector is flexible for user preference.

Handle Grip

The MODAT-335 features a removable handle grip which can be secured to the device whenever the user needs it. Its advantages include:

- Easy to hold and carry while reading tags
- Increased reading angles

Handle Grip Installation

MODAT-335A New

Field Service Terminal

- 3.5” TFT sunlight readable LCD touch screen
- Texas Instruments Sitara ARM Cortex A8 CPU
- Built-in Android 4.1.2 OS
- Wi-Fi, Bluetooth and WCDMA/HSDPA or GPRS wireless technology
- Built-in GPS
- 1D Laser/2D Imager Scan Engine and Supports Mifare (ISO 14443A) Felica (ISO 18092) and ISO 15693 RFID reader and 3-megapixel camera
- Optional Handle Grip

Cortex Intelligent Processors by ARM

Texas Instruments

3.75G/HSUPA | Bluetooth | Wi-Fi | RFID | GPS | 1D Barcode Scanner | 2D Barcode Scanner | Android

Power Saving and Trendy Platform

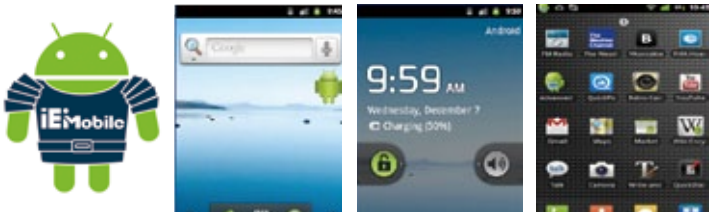
TI Cortex A8 CPU

TI’s Sitara™ family of highly-integrated ARM9™ and ARM Cortex™-A8 microprocessor portfolio offers various combinations of high-performance and low power levels, providing the ability to create an array of products using a common hardware and software platform.

Texas Instruments

Android 4.1 Operating System

- Android is free and decreases cost of adoption
- Open source platform cultivates newer ideas and designs
- Open for customization enhances application flexibility
- Huge ecosystem increases support



Specifications

Model	MODAT-335A	
Display	LCD Size	3.5" TFT LCD (Sunlight Readable)
	Brightness (cd/m²)	190 cd/m²
	Max Resolution	240(H) x 320(V) QVGA
	Viewing Angle	80/80/80/80 Deg.
	Touch Screen	4-wire resistive type touch
System	CPU	TI Sitara AM3715 1GHz
	Operating System	Android 4.1.2
	Memory	4GB eMMC + 512MB SDRAM
	Storage	MicroSD slot
Communication	Wi-Fi	Wi-Fi 802.11a/b/g/n
	Bluetooth	Bluetooth® 4.0
	Modem	WCDMA/HSDPA or GPRS
	GPS	GPS w/internal antenna
Data Collection	RFID	13.56 MHz RFID supports ISO 15693 and 14443A/B compliant UHF (optional): EPC Global Class1 Gen2 supports ISO/IEC 18000-6 Type C and at least 2m reading distance
	Barcode	1D Laser/2D imager scan engine
	Camera	3-megapixel CMOS camera with LED flash light
Indicator & Buttons	LED Indicator	Charging status LED Wi-Fi enable/disable LED 3.5G/2.5G enable/disable LED
	Hot Keys	2 x Barcode key 1 x Camera key
I/O Interface	Audio	1 x Speaker
		1 x Headset / Built-in Mic-in
	Expansion	1 x Mini USB Client 2.0
		16-pin connector (RS-232 / USB Host / USB Client)
Power	Power Adapter	Input: 100V AC to 240V AC ~ 50-60Hz 0.2A Output: 5V / 2.1A
	Battery	3.7V 3000 mAh battery
Environment	Operating Temperature	-10°C~50°C
	Storage Temperature	-20°C ~ 60°C
	Humidity	5%~95%, non-condensing
	Drop Survival	1.5M
	Environment Protection	IP 54
	Certification	CE / FCC
Physical Characteristics	Dimension(LxWxH)(mm)	218.5 x 81 x 46
	Weight	405 g

Optional Accessory List

Item	Part No.	Description
Cradle	MODAT-300-CR01-R10	Charging cradle with USB Client
Battery Pack	31603-000017-RS	3.7V 3000 mAh battery
16-pin Cable	32024-001500-100-RS	Connect to USB Host, USB Client and RS-232
Handle Grip	MODAT-335-GRIP-R10	Removable handle grip can trigger 1D/2D barcode
UHF Reader	MODAT-335-UHF-R10	Ultra high frequency (UHF) reader whith 3000 mAh battery.

Packing List

Item	Part No.	Q'ty
Battery Pack	31603-000017-RS	1
USB Cable	32001-000300-200-RS	1
AC-DC Adapter	63040-330010-000-RS	1
Headset	30900-000003-RS	1
Stylus	7Z000-6051D0320101-RS	1
MODAT-335 Standard Pouch	46037-000200-RS	1
Handle Grip Pouch	46037-000100-RS	1

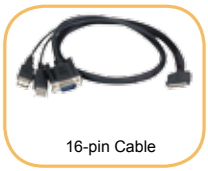
Cradle

USB Cable

Headset

Battery Pack

Stylus


16-pin Cable

UHF Reader

Handle Grip

Standard Pouch

Handle Grip Pouch

Support Function

Part No.	OS	Wi-Fi	Blutooth	Modem	GPS	Barcode	RFID	Camera
MODAT-335-WB65-En	Windows® Embedded Handheld 6.5	802.11b/g	Bluetooth 2.1+EDR	WCDMA/ HSDPA	GPS w/internal antenna	1D/2D Image Scan Engine	Supports Mifare (ISO 14443A), Felica (ISO 18092) and ISO 15693	3-megapixel
MODAT-335-GPRS-WB65-En		802.11b/g	Bluetooth 2.1+EDR	GPRS/GSM	GPS w/internal antenna	1D Laser Scan Engine		3-megapixel
MODAT-335-1D-WB65-En		802.11b/g	Bluetooth 2.1+EDR	N/A	N/A	1D Laser Scan Engine	N/A	3-megapixel
MODAT-335-AD41-E-R10	Android 4.1.2	802.11a/b/g/n	Bluetooth 4.0	WCDMA/ HSDPA	GPS w/internal antenna	1D/2D Image Scan Engine	Supports Mifare (ISO 14443A), Felica (ISO 18092) and ISO 15693	3-megapixel
MODAT-335-1D-AD41-R10		802.11a/b/g/n	Bluetooth 4.0	N/A	N/A	1D Laser Scan Engine	N/A	3-megapixel

Ordering Information

Part No.		Description
Windows® Embedded Handheld 6.5 Operating System	MODAT-335-WB65-En	3.5" TFT-LCD, Enterprise PDA with Marvell® PXA 310 624MHz CPU, 802.11b/g Wireless, Bluetooth, HSDPA, GPS, 1D/2D Barcode Scanner, RFID, 3-megapixel Camera, Windows® Embedded Handheld 6.5 OS, RoHS
	MODAT-335-GPRS-WB65-En	3.5" TFT-LCD, Enterprise PDA with Marvell® PXA 310 624MHz CPU, 802.11b/g Wireless, Bluetooth, GPRS/GSM, GPS, 1D Barcode Scanner, RFID, 3-megapixel Camera, Windows® Embedded Handheld 6.5 OS, RoHS
	MODAT-335-1D-WB65-En	3.5" TFT-LCD, Enterprise PDA with Marvell® PXA 310 624MHz CPU, 802.11b/g Wireless, Bluetooth, 1D Barcode Scanner, 3-megapixel Camera, Windows® Embedded Handheld 6.5 OS, RoHS
Android 4.1.2 Operating System	MODAT-335-AD41-E-R10	3.5" TFT-LCD, Enterprise PDA with TI Sitara AM3715 CPU, UMTS 900/2100MHz & GSM 900/1800MHz, GPS,WiFi,Bluetooth, RFID reader, 1D/2D barcode Reader, 3-megapixel Camera, Android 4.1.2 OS, RoHS
	MODAT-335-1D-AD41-R10	3.5" TFT-LCD, Enterprise PDA with TI Sitara AM3715 CPU, 802.11a/b/g/n Wireless, Bluetooth, 1D Barcode Scanner, 3-megapixel Camera, Android 4.1 OS, RoHS

iEiMobile®

Automotive PC

On-Board Diagnostics (OBD-II) OBD and CAN-bus

- On-Board Diagnostics, or OBD, in an automotive context, is a generic term referring to a vehicle's self-diagnostic and reporting capability. OBD systems give the vehicle owner or a repair technician access to state-of-health information for various vehicle sub-systems.
- OBD-II is a standard that specifies the type of diagnostic connector and its pin-out, the electrical signaling protocols available, and the messaging format.
- Almost all of the automobiles produced today are required, by law, to provide an interface for connecting a diagnostic test equipment.

OBD-II Cable

Pin	Description
1	Manufacturer discretion. GM: J2411 GMLAN/SWC/Single-Wire CAN.
2	Bus positive Line of SAE-J1850 PWM and SAE-1850 VPW
3	Ford DCL(+) Argentina, Brazil (pre OBD-II) 1997-2000, Usa, Europe, etc. Chrysler CCD Bus(+)
4	Chassis ground
5	Signal ground
6	CAN high (ISO 15765-4 and SAE-J2284)
7	K line of ISO 9141-2 and ISO 14230-4
8	-
9	-
10	Bus negative Line of SAE-J1850 PWM only (not SAE-1850 VPW)
11	Ford DCL(-) Argentina, Brazil (pre OBD-II) 1997-2000, Usa, Europe, etc. Chrysler CCD Bus(-)
12	-
13	-
14	CAN low (ISO 15765-4 and SAE-J2284)
15	L line of ISO 9141-2 and ISO 14230-4
16	Battery voltage

OBD-II provides access to numerous data from the engine control unit (ECU) and offers a valuable source of information when troubleshooting problems inside a vehicle:

- Vehicle speed
- Engine RPM
- Total fuel used (litre since life time)
- High resolution vehicle distance
- Engine coolant temperature
- Vehicle ambient temperature
- Tachograph information
- Total engine hours (h)
- Fuel level (0–100 %)
- Fuel pressure
- Fuel system status
- DTC (Diagnostic Trouble Code)
- Calculated engine load
- Intake air temperature
- Throttle position
- Accelerator pedal position (0–100 %)
- Axle weight (kg)
- Oxygen sensors and status
- Clutch switch (on/off)
- Brake switch (on/off)
- Cruise control (on/off)
- PTO (Status/Mode)

There are five signalling protocols currently in use with the OBD-II interface. Any given vehicle will likely only implement one of the protocols.

- SAE J1850 PWM (pulse-width modulation - 41.6 kB/sec, standard of the Ford Motor Company)
- SAE J1850 VPW (variable pulse width - 10.4/41.6 kB/sec, standard of General Motors)
- ISO 9141-2. K-line and L-line. This protocol has an asynchronous serial data rate of 10.4 kBaud. It is primarily used in Chrysler, European, and Asian vehicles.
- ISO 14230 KWP2000 (Keyword Protocol 2000)
- ISO 15765 CAN (250 kBit/s or 500 kBit/s). The CAN protocol is a popular standard outside of the US automotive industry and is making significant in-roads into the OBD-II market share. By 2008, all vehicles sold in the US will be required to implement CAN, thus eliminating the ambiguity of the existing five signalling protocols.

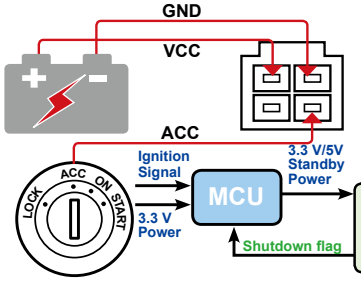
In-Vehicle Power Design

Wide DC Input Range

IEIMobile's in-vehicle computers are designed with a wide DC input range from 9V to 36V. This protects the device from malfunctioning when the vehicle's power system surges during peak loading and charge up.

Delay Power-On and Power-Off Setting

The power-on and power-off time can be configured with the power management software provided in the device or through BIOS. With delayed power on and off settings, the system is protected against sudden voltage surges as the ACC turns on or shuts down.



- The special MCU enables system to automatically reboot or shutdown based on the adjustable delay time by detecting ACC status.
- Surge protection and low power consumption hardware design

	LOCK	ACC	ON	START
ACC Signal	off	On	On	off
Car Cigarette Lighter	off	On	On	off
5V Standby Power	off	On after 1 second	On	On
Auto Start-up	--	After 10~60 seconds (selectable)		--
Auto Shut-down	After 10~180 secs (selectable)	--		--

Certification

Certification	Definition	
ISO 7637		ISO 7637 is a global standard that specifies the test methods and procedures to ensure the compatibility of electrical equipments installed on passenger and commercial vehicles.
E-Mark		E-Mark is based on EU Directive and is a safety certification mark which the European Commission requires that member states apply it on motor vehicle, parts and systems.
MIL-STD-810	MIL-STD-810F	MIL-STD-810 is a military standard that addresses a broad range of environmental conditions that include low pressure, exposure to high and low temperatures, temperature shock, water, humidity, sand and dust exposure.

Off-Road

Marine

Construction

Bus & Truck

Diesel Engine

Agricultural

Vibration Test

Follow MIL-STD-810F 514.5C-1

	Operating Random Vibration Mode	Non-Operating Sine Mode
Rules	(MIL-STD-810F 514.5C-1)	IEC-60068-2-06
	Axis: 3 axes / Vertical / Transverse / Longitudinal. 10-500 Hz, 60min/axis	Axis: 3 axes / Vertical / Transverse / Longitudinal .2. 0.4in. p-p, 10-55Hz

Shock Test

Reference IEC68-2-27 Testing Procedures

	Operating	Non-Operating
Rules	Operating Shock Half-Sine Wave Shock	Non-Operating Shock Half-Sine Wave Shock
	Acceleration 5 G	Acceleration 15 G

Global Positioning Systems: GLONASS & COMPASS

IEIMobile's products utilize GPS modules from the market leading positioning solution provider - U-blox. In addition to supporting the American GPS system, selected GPS modules are also able to support the latest Russian GLONASS and Chinese COMPASS systems.

Emergency Call Systems

Emergency response systems for road accidents in EU and Russia
- Emergency call generated following an accident using GSM service
- In-vehicle emergency system (IVS) creates emergency call (voice and data like position and car info) to the nearest Public Safety Answering Point (PSAP)

■ Fundamentals of the two systems are the same
■ Main differences are:
- Positioning technology (GPS or Glonass)
- SMS allowed as backup in ERA-Glonass system

■ Both systems use 3GPP specified In-Band modem technology to send data and voice on the same channel
■ Expected rollout
- eCall: 2014
- ERA-Glonass 2013

Automotive PC

New

Model		iKarPC	iKarPC-Lite	VTT-1000	VTT-1000-WiFi	AVL-2000	AVL-3000
Display	LCD Size	8" TFT-LCD (Sunlight readable)	7" TFT-LCD	3.5" TFT-LCD	3.5" TFT-LCD	N/A	N/A
	Brightness (cd/m²)	600 cd/m² High Brightness	500 cd/m² High Brightness	450 cd/m²	450 cd/m²	N/A	N/A
	Max Resolution	800 x 480 pixels WVGA	800 x 480 pixels WVGA	320 x 240 pixels QVGA	320 x 240 pixels QVGA	N/A	N/A
	Viewing Angle	60/60/50/50 Deg.	60/70/70/70 Deg.	50/55/60/60 Deg.	50/55/60/60 Deg.	N/A	N/A
	Touch Screen	5-wire Resistive Type Touch	Projective Capacitive Type Touch	4-wire Resistive Type Touch	4-wire Resistive Type Touch	N/A	N/A
System	CPU	Intel® Atom™ Z510 1.1GHz	TI ARM Cortex-A8 AM3715 1GHz	Samsung S3C2416 ARM9 400 MHz	Samsung S3C2416 ARM9 400 MHz	Intel® Atom™ Z510 1.1GHz	Intel® Atom™ N2600 1.6Ghz
	Chipset	Intel® US15WP	N/A	N/A	N/A	Intel® US15WP	Intel® NM10
	Operating System	Microsoft® Windows® XP Embedded	Android 4.1	Microsoft® Windows® CE 6.0	Microsoft® Windows® CE 6.0	Microsoft® Windows® XP Embedded	Windows® Embedded Standard 7 E
	Memory	On-board 1GB DDR2 533 MHz	On-board 4GB iNAND Flash and 512MB DDR SDRAM	On-board 128MB DDR2 133MHz	On-board 128MB DDR2 133MHz	On-board 1GB DDR2 533MHz	On-board 2GB DDR3
	Storage	4GB CompactFlash® SD Card Slot	Built-in SD Card Slot (supports SD 2.0, max 32GB)	256MB NAND FLASH microSD Card Slot	256MB NAND FLASH microSD Card Slot	4GB CompactFlash® SD Card Slot	1 x Built-in 16GB SATA SSD 1 x SDXC slot for data storage
Communication	Wireless LAN	Wi-Fi 802.11b/g/n	Wi-Fi 802.11b/g/n	N/A	Wi-Fi 802.11b/g	Wi-Fi 802.11b/g/n	Wi-Fi 802.11b/g/n
	Bluetooth	Bluetooth 2.1+ EDR (Class I)	Bluetooth 2.1+ EDR (Class I)	N/A	N/A	N/A	Bluetooth V2.0+EDR (Class I)
	Data Rate	WCDMA/HSUPA	WCDMA/HSDPA or GPRS	GSM/GPRS	N/A	WCDMA/HSUPA or GPRS	WCDMA/HSUPA or GPRS
	GPS	GPS w/ External Antenna	GPS w/ External Antenna	GPS w/ External / External Antenna	GPS w/ External / External Antenna	GPS w/ External Antenna	GPS w/ External Antenna
Multimedia	Audio	1 x Line-in 1 x Line-out 1 x 3W Speaker	1 x Line out (R+L) (3-pin) 1 x Mic in (3-pin)	1 x Line-out 1 x 1.5W Speaker	1 x Line-out 1 x 1.5W Speaker	1 x Line-in 1 x Line-out	1 x Mic-in 1 x Line-out
Data Collection	RFID	N/A	13.56MHz RFID Reader Supports ISO 14443A (Mifare) ISO 14443B (Felica)	N/A	N/A	ISO 18000-6C UHF RFID (optional)	ISO 18000-6C UHF RFID (optional)
	Video Capturing	N/A	N/A	N/A	N/A	4-channel video input	4-channel video input with hardware compression support
	Camera	0.3-megapixel CMOS Camera	2-megapixel CMOS Camera	N/A	N/A	N/A	N/A
LED Indicators & Buttons	Indicators	Wi-Fi/Bluetooth/ HDD/3.75G/DVB-T/Power Status LED	3.5G/Wi-Fi/BT/Power Status LED	Power/GPS/2.5G Status LED	Power/GPS/2.5G Status LED	UHF/Wi-Fi/Bluetooth/RS-422/485/HDD/3.75G/BAT/ Power Status LED	Power LED
	Hot Keys & Buttons	F1~F6 Function Key, Navigation Key, Power Button	4 x Function key, Power Button	7 x Programmeable Keys , Power Button, Reset Button	7 x Programmeable Keys , Power Button, Reset Button	Power Button	Power Button
I/O Interface	USB	2 x USB 2.0 Full Speed	2 x USB 2.0 Full Speed	1 x Mini USB 1.1	1 x Mini USB 1.1	2 x USB 2.0 Full Speed	4 x USB 2.0
	Serial	1 x DB-9 OBD-II 1 x DB-9 RS-232/422/485 (Software selectable w/ 5V DC)	1 x OBD-II (7-pin) 1 x USB (4-pin) 1 x RS-232 (9-pin)	1 x OBD-II 1 x RS-232	1 x OBD-II 1 x RS-232	1 x DB-9 OBD-II 1 x DB-9 RS-232/422/485	1 x OBD-II 6 x COM port: DB-9 (COM1), RS-422/485 (COM4, 4-pin), DB-37 (COM7~COM10)
	LAN	1 x 10/100/1000 Mbps GbE RJ-45	1 x 10/100/1000 Mbps GbE (4-pin)	N/A	N/A	1 x 10/100/1000 Mbps GbE RJ-45	1 x 10/100/1000 Mbps GbE RJ-45
	VGA	N/A	N/A	N/A	N/A	1 x VGA	1 x VGA (supports up to 1920x1200)
	CAN	N/A	1 x CAN-bus 2.0B (2-pin)	N/A	1 x CAN-bus 2.0B	1 x CAN-bus 2.0	N/A
	Remote Control	Yes	N/A	N/A	N/A	N/A	N/A
	Digital I/O	N/A	2 Input (3-pin) / 2 Output (3-pin)	2 Input / 2 Output	2 Input / 2 Output	4 Input / 4 Output	4 Input / 4 Output
	HDMI	N/A	N/A	N/A	N/A	N/A	1 x HDMI
Power	Cigarette Lighter Power	Cigarette Lighter Power Cable DC 9~30V	Cigarette Lighter Power Cable DC 9~36V	Cigarette Lighter Power Cable DC 9~30V	Cigarette Lighter Power Cable DC 9~30V	Cigarette Lighter Power Cable DC 9~30V	Cigarette Lighter Power Cable DC 9~36V
	ACC Power	ACC power on/off mode with software configurable delay time	ACC power on/off mode with software configurable delay time	N/A	N/A	ACC power on/off mode with software configurable delay time	ACC power on/off mode with software configurable delay time
Environment	Operating Temperature	-20˚C to +60˚C	-20˚C to +60˚C	-20˚C to +70˚C	-20˚C to +70˚C	-20˚C to +70˚C	-20˚C to +70˚C
	Storage Temperature	-30˚C to +70˚C	-30˚C to +70˚C	-30˚C to +80˚C	-30˚C to +80˚C	-30˚C to +80˚C	-30˚C to +80˚C
	Humidity	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing	5%~95%, non-condensing
	Drop Survival	1M	1M	1M	1M	N/A	N/A
	Environmental Protection	IP 54 compliant front panel (Water, dust and splash resistant)	IP 54 compliant front panel (Water, dust and splash resistant)	IP 54 compliant front panel (Water, dust and splash resistant)	IP 54 compliant front panel (Water, dust and splash resistant)	N/A	N/A
	Certifications	CE/FCC/e-MARK/ ISO7637	CE/FCC/e-MARK/ ISO7637	CE/FCC/e-MARK/ ISO7637	CE/FCC/e-MARK/ ISO7637	CE/FCC/e-MARK/ ISO7637	CE/FCC/e-MARK/ISO7637
Physical Characteristics	Dimensions (LxWxH) (mm)	261 x 162 x 44	210 x 154 x 28	128 x 89 x 32	128 x 89 x 32	200 x 155 x 70	200 x 150 x 76
	Net Weight	1.7kg	0.8kg	0.17kg	0.17kg	1.9kg	2.0kg

iKarPC

COMPUTEX TAIPEI 2011 BEST CHOICE

Vehicle Computer Series

- 8" TFT sunlight readable LCD touch screen
- Intel® Atom™ Z510 1.1 GHz processor
- Pre-installed Windows® XP Embedded
- Built-in HSUPA/GPRS/GSM, Wi-Fi and Bluetooth
- Built-in 32-channel GPS receiver
- Supports On-Board Diagnostics (OBD)

3.75G/HSUPA | Bluetooth | Wi-Fi | Fanless | Operating Temperature | High Brightness | Touchscreen | Camera | OBD-II | Intelligent Systems Alliance

Fleet Management Applications

IPCAM Applications

IP camera is a type of digital video camera commonly employed for surveillance. Unlike analog closed-circuit television (CCTV) cameras, it can send and receive data via a computer network and the Internet.

iKarPC can monitor and record vehicle status through IPCAM.

OBD-II Applications

Auto Service

Car Racing

Rental & Insurance

Fleet Management

SAE J1939 Applications (Support by Project)

Off-Road

Marine

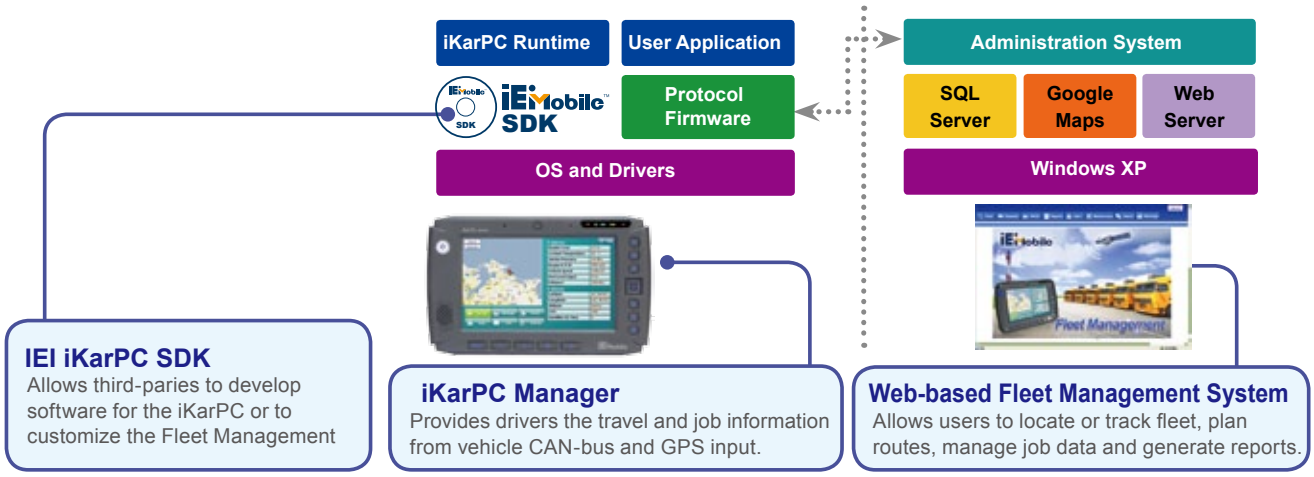
Construction

Bus & Truck

Diesel Engine

Agricultural

Turnkey Software


iKarPC Runtime
User Application
Protocol Firmware
iEiMobile SDK
OS and Drivers
Administration System
SQL Server
Google Maps
Web Server
Windows XP
IEI iKarPC SDK
Allows third-paries to develop software for the iKarPC or to customize the Fleet Management
iKarPC Manager
Provides drivers the travel and job information from vehicle CAN-bus and GPS input.
Web-based Fleet Management System
Allows users to locate or track fleet, plan routes, manage job data and generate reports.

Passenger Bus Management Case Study

Background

With more than 20 years experience in transportation service, a Taiwan-based passenger bus transportation company provides city bus, inter-city bus, and tour bus services, and operates on more than 60 routes in northern Taiwan. In order to ensure both vehicle and passenger safety, fleet management has always been the most important part of daily operations.

Challenge

The passenger bus company required an in-vehicle device to be integrated with its fleet management system for its tour buses. In the past, they utilized a simple tracking device that allowed the back office to know the whereabouts of each bus. However, this device was very simple, and was unable to perform functions such as GPS navigation and road status reports. Also, the customer service center has been receiving complaints about driver behavior that has put safety into concern.

The passenger bus company recognized that a new device with more functions was necessary. In addition, the device must be able to perform monitoring, alcohol testing, navigation, and diagnostic functions.

Solution

The iKarPC 8” in-vehicle computer provides a stable and reliable system for the passenger bus company to use for fleet management. Designed with a sunlight readable screen and to withstand strong vibrations and wide temperatures, the iKarPC is extremely suitable for harsh vehicle environments. Through 3G wireless connectivity, bus drivers can maintain contact with the management center and route status reports can be received in real-time. Together with the built-in GPS module, drivers are able to navigate, and at the same time, the back office is able to track and locate drivers on the road. Most importantly, vehicle and passenger safety is ensured, in part, by utilizing a breathalyzer that is connected to the iKarPC through the RS-232 port.

Benefits

- Meets specific transportation certifications such as e-Mark and ISO7637, which ensure reliability.
- Built-in Bluetooth, Wi-Fi, and 3G for wireless communication with peripheral devices and back office.
- Built-in GPS receiver for location and navigation.
- Performs vehicle diagnostics with OBD-II.

Specifications

Model	iKarPC	
Display	LCD Size	8" TFT-LCD (Sunlight readable)
	Brightness (cd/m²)	600 cd/m² High Brightness
	Max Resolution	800 x 480 pixels WVGA
	Viewing Angle	60/60/50/50 Deg.
	Touch Screen	5-wire resistive type touch
System	CPU	Intel® Atom™ Z510 1.1 GHz
	Chipset	Intel® US15WP
	Operating System	Microsoft® Windows® XP Embedded
	Memory	On-board 1 GB DDR2 533 MHz
	Storage	4 GB CompactFlash® SD Card Slot
Communication	Wireless LAN	Wi-Fi 802.11b/g/n
	Bluetooth	Bluetooth V2.0+ EDR (Class 1)
	Modem	WCDMA/HSUPA
	GPS	GPS
Multimedia	Audio	1 x Line-in 1 x Line-out 1 x 3 W Speaker
	Camera	0.3-megapixel CMOS Camera
LED Indicators & Buttons	Indicators	Wi-Fi/Bluetooth/HDD/3.75G/DVB-T/Power Status LED
	Hot Key & Buttons	F1~F6 Function Key, Direction Key, Power Button
I/O Interface	USB	2 x USB 2.0
	Serial	1 x DB-9 OBD-II 1 x DB-9 RS-232/422/485 (Software selectable w/ 5V DC)
	LAN	1 x 10/100/1000 Mbps GbE RJ-45
Power	Cigarette Lighter Power	Cigarette Lighter Power Cable DC 9~30V
	ACC Power	Manual power mode and ignition detection supported ACC power on/off mode with software configurable delay time
Environment	Operating Temperature	-20˚C ~ +60˚C
	Storage Temperature	-30˚C ~ +70˚C
	Humidity	5%~95%, non-condensing
	Drop Survival	1 M
	Environmental Protection	IP54 compliant front panel (Water, dust and splash resistant)
	Certification	CE/FCC/e-Mark/ISO7637
Physical Characteristics	Dimensions (LxWxH) (mm)	261 x 162 x 44
	Net Weight	1.7kg

Optional Accessory List

Item	Part Number	Description
Power Adapter	IVIPOWER-4PIN-R10	Power Adapter, PFC; Vin:90~264VAC; 60W; Vout: 12VDC; Din 4Pin/lock; CCL; RoHS
Bracket	iKarPC-W08A-MK01-R10	iKarPC 100 x 100 VESA mount kit
Bracket	iKarPC-W08A-MK02-R10	iKarPC ram-mount 100 x 100 VESA mount kit

Packing List

Item	Part Number	Q'ty
Remote Controller	7Z000-8T00322ICP06G-RS	1
GPS/3.75G Integrate Antenna	32506-000100-100-RS	1
ACC Power Cable	32002-001900-100-RS	1
Cigarette Lighter Power Cable	32002-004000-100-RS	1
OBD-II Cable	32025-000300-100-RS	1
J1939 Cable	32025-000400-100-RS	1
Uesr's Manual CD-ROM	IEI-7B000-000544-RS	1
IEI One Key Recovery CD	IEI-7B000-000478-RS	1

Support Function

Part Number	Wireless	Bluetooth	GPS	3.75G	OS
iKarPC-W08A-510-HU-R12	802.11b/g/n	V2.0+EDR, Class 1	U-blox	Qualcomm	XPE
iKarPC-W08A-510-HW-R12	802.11b/g/n	V2.0+EDR, Class 1	U-blox	HUAWEI	XPE

Ordering Information

Part Number	Description
IKARPC-W08A-510-HU-R12	8.0" TFT-LCD 600 cd/m² WVGA In Vehicle PC with Intel® Atom™ Z510 1.1GHz CPU, 1GB SDRAM, 802.11b/g/n Wireless, Bluetooth, HSUPA, OBD-II, Touch screen, 0.3-megapixel Camera, XPE OS, 4GB CF, RoHS
IKARPC-W08A-510-HW-R12	8.0" TFT-LCD 600 cd/m² WVGA In Vehicle PC with Intel® Atom™ Z510 1.1GHz CPU, 1GB SDRAM, 802.11b/g/n Wireless, Bluetooth, HUAWEI HSUPA, OBD-II, Touch screen, 0.3-megapixelCamera, XPE OS, 4GB CF, RoHS

iKarPC Lite New

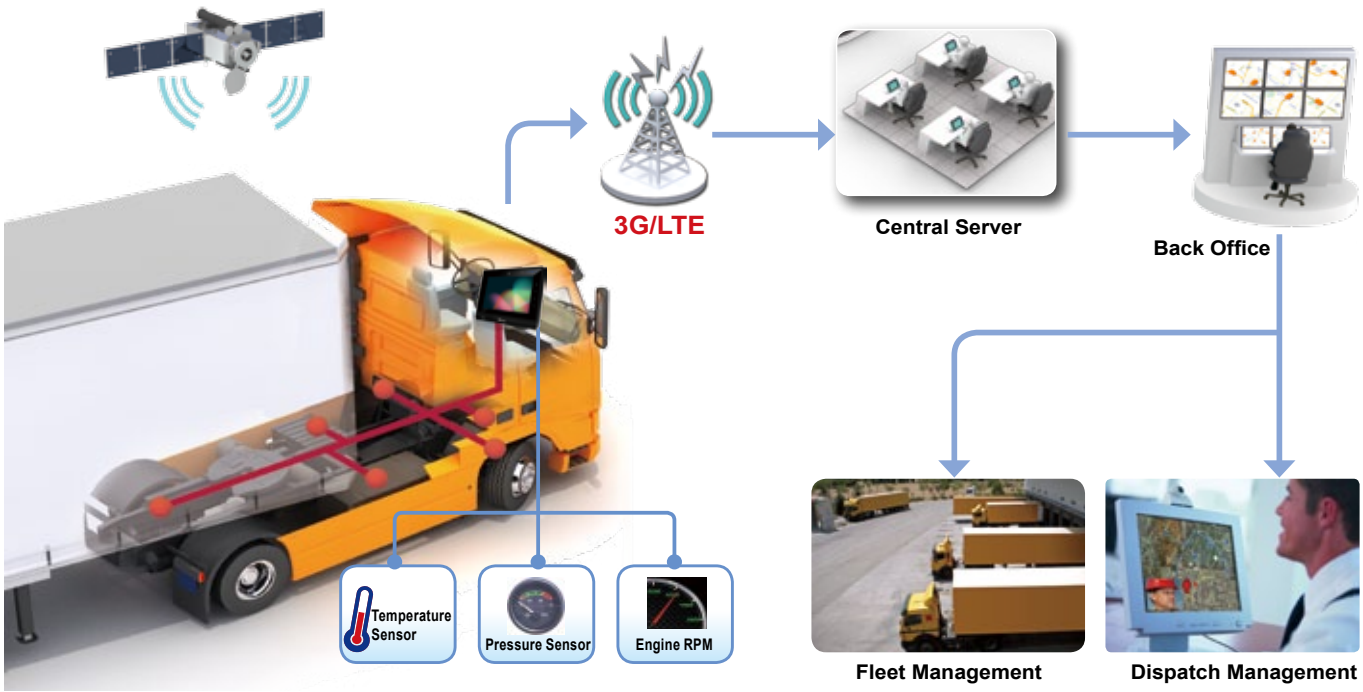
Vehicle Computer Series

- 7" TFT sunlight readable TFT LCD with projective capacitive touchscreen
- TI ARM Cortex-A8 AM3715 1GHz
- Pre-installed Android 4.1 operating system
- Built-in HSUPA/GPRS/GSM, Wi-Fi and Bluetooth
- Built-in GPS receiver
- Supports On-Board Diagnostics: one CAN 2.0B or OBD-II
- On-board RFID with antenna

3.75G/HSUPA | Bluetooth | Wi-Fi | Fanless | Operating Temperature | High Brightness | Touchscreen | Camera | OBD-II | ANDROID

Applications

IEIMobile's new Android rugged infotainment car PC is pointing to dramatic changes in the field use of mobile devices thanks to the superior touch screen performance and integrated functionality.



GNSS New Topic - eCall and ERA-Glonass Systems

Emergency response systems for road accidents in EU and Russia
- Emergency call generated following an accident using GSM service
- In-vehicle emergency system (IVS) creates emergency call (voice and data like position and car info) to the nearest Public Safety Answering Point (PSAP)

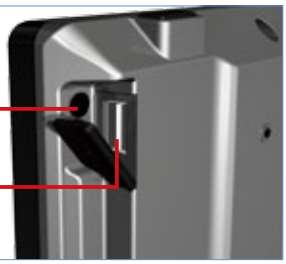
■ Fundamentals of the two systems are the same
■ Main differences are:
- Positioning technology (GPS or Glonass)
- SMS allowed as backup in ERA-Glonass system

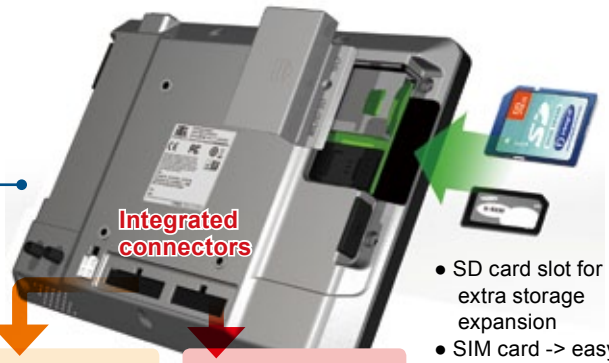
■ Both systems use 3GPP specified In-Band modem technology to send data and voice on the same channel
■ Expected rollout
- eCall: 2014
- ERA-Glonass 2013

I/O Expansions

The screwable USB connector is for function expansion such as connecting to an external barcode scanner or smart card reader.

USB host provides more expansion capability.





- SD card slot for extra storage expansion
- SIM card -> easy installation

- 2 x D/I (3-pin)
- 2 x D/O (3-pin)
- 1 x OBD-II (7-pin)
- 2 x CAN 2.0B (2-pin)
- USB (4-pin)
- CTS CSI-3584-2010

- 1 x Video in (2-pin)
- 1 x Ethernet (4-pin)
- 1 x RS-232 (9-pin)
- 1 x Audio out (R+L) (3-pin)
- 1 x Mic in (3-pin)

Fire Truck Dispatch System Case Study

Background

Established in 1973, a fire and emergency service provider in South Africa has an extensive range of public safety services including fire prevention, public education, fire response, and emergency incidents. The company operates around 30 engine companies, 5 truck companies, 3 rescue, and 3 squad units. Emergency response is provided from 30 stations, 24 hours a day, 365 days a year.

Challenge

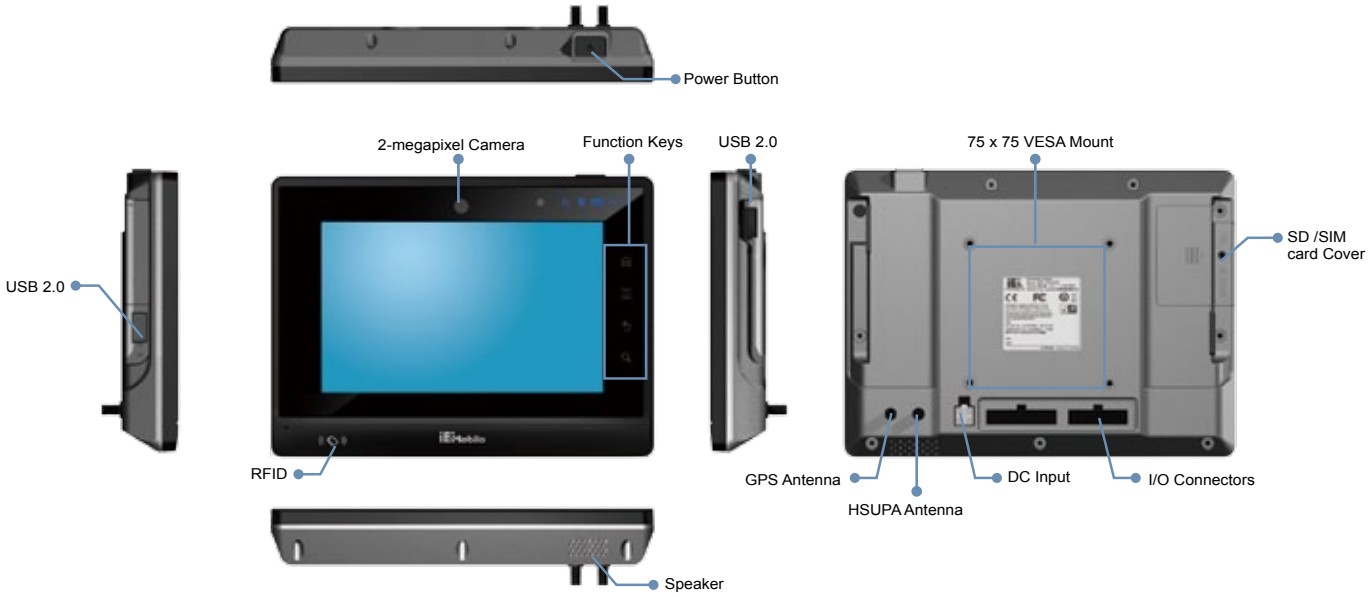
In the business of fire and emergency response, time and efficiency are the most important because it concerns the lives and safety of citizens. Technology plays a major part of enabling firefighters to respond to emergencies first hand. Previously, fire fighters relied on walkie talkies to receive emergency dispatches from the call center. This old system was inefficient and it was time for the company to revise it.

Solution

The iKarPC-Lite is selected to serve as an in-vehicle platform for the company's new dispatch system. With this device in place, the back office can send out dispatch information wirelessly and firefighters can receive it immediately. Once retrieved, location and navigation is performed with the built-in GPS function, allowing firefighters to arrive at the emergency site in no time.

Benefits

- Built-in GPS function for location and navigation applications.
- Meets specific transportation certifications such as e-Mark and ISO7637, which ensure reliability.
- Built-in 3G allows quick reception of dispatch information from the back office.



Specifications

Model		iKarPC-Lite
Display	LCD Size	7" TFT LCD with LED backlight
	Brightness (cd/m²)	500 cd/m² high brightness
	Max Resolution	800 x 480 pixels WVGA
	Viewing Angle	60/70/70/70
	Touch Screen	Projective capacitive type
System	CPU	TI ARM Cortex A8 AM3715 1GHz
	Operating System	Android 4.1.2
	Memory	On-board 4GB iNAND flash and 512 MB DDR SDRAM
	Storage	Built-in SD card slot (supports SD 2.0, max. 32GB)
Communication	Wireless LAN	Wi-Fi 802.11b/g/n
	Bluetooth	Bluetooth® 2.1+ EDR (Class I)
	Data Rate	WCDMA/HSDPA or GPRS
	GPS	GPS w/ external antenna
Multimedia	Audio	1 x Line out (R+L) (3-pin) 1 x Mic in (3-pin)
Data Collection	RFID	13.56MHz ISO14443 A/B Read-Write Capable ISO14443A (Mifare) ISO14443B (Felica)
	Camera	2-megapixel CMOS camera
LED Indicators & Buttons	Indicators	3.5G/Wi-Fi/BT/Power status LED
	Hot Keys & Buttons	4 x Function keys
I/O Interface	USB	2 x USB 2.0 Full Speed
	Serial	1 x OBD-II (7-pin) 1 x USB (4-pin) 1 x RS-232 (9-pin)
	LAN	1 x 10/100/1000 Mbps GbE (4-pin)
	CAN	1 x CAN 2.0B (2-pin)
	Digital I/O	2-bit input (3-pin), 2-bit output (3-pin)
Power	Cigarette Lighter Power	Cigarette lighter power cable, DC 9~36V
	ACC Power	ACC power on/off mode with software configurable delay time
Environment	Operating Temperature	-20ºC to +60ºC
	Storage Temperature	-30ºC to +70ºC
	Humidity	5%~95%, non-condensing
	Drop Survival	1M
	Environmental Protection	IP 54 compliant front panel (water, dust and splash resistant)
	Certifications	CE/FCC/e-MARK/ISO7637
Physical Characteristics	Dimensions (LxWxH) (mm)	210 x 154 x 28
	Net Weight	0.8kg

Packing List

Item	Part Number	Q'ty
3.75G+GPS Antenna	32503-000100-100-RS	1
ACC Power Cable	32002-000901-100-RS	1

Optional Accessory List

Item	Part Number	Description
Power Adapter	IVIPOWER-4PIN-R10	Power Adapter; 63000-FSP040DGAA1107-RS + Switching Cable 32002-005100-100-RS
Cigarette Lighter Power Cable	32002-001700-100-RS	Round Cable; Power Cable; 2;1000MM; 18AWG; (A) Cigarette Lighter (10A 250V) + LED; (B) Power DIN 4PIN MALE + LOCK; RoHS

Ordering Information

Part Number	Description
IKARPC-07A-A8-R10	7" 500 cd/m² In-Vehicle Panel PC with TI Cortex-A8 AM3715 Processor, 1GHz , 4GB iNAND flash, 512 MB DDR SDRAM, OBD-II, HSUPA , GPS, Wi-Fi b/g/n, BT 2.1, 2-megapixel Camera, RoHS

VTT-1000

Vehicle Tracking Terminal

- 3.5” TFT LCD touch screen
- Embedded with ARM9 400MHz CPU
- Pre-installed Windows® CE 6.0
- Built-in GSM/GPRS and antenna
- SiRF Star III 20-channel GPS receiver
- Supports On-Board Diagnostics (OBD)

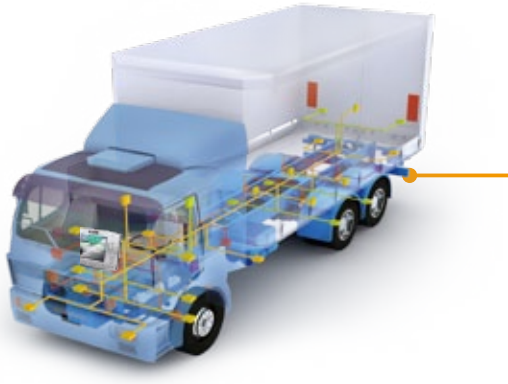
Fanless | Touchscreen | OBD-II | GPS | GPRS | microSD | ARM POWERED | Windows CE.net

Applications

- Fleet Management System
- In-Vehicle Infotainment
- Location-Based Services
- Real-time Vehicle Diagnostic
- Emergency and Security Services

Built-in Sensors and I/O

VTT-1000 includes built-in temperature sensor, G-sensor, E-compass, and digital I/O to provide advanced vehicle monitoring and control applications. For example:



- ●Alarm, light and sound supplier automatically checks for unusual tags.
- ●An automatic emergency call will be initiated when airbag deployment is detected.
- ●When the G-Sensor detects a sudden brake or acceleration, system begins to log critical vehicle data, navigation data, and real-time picture or video.
- ●Real-time navigation and position logging.

OEM Built-in Optional 3rd Party Navigation Software (May Require MOQ and NRE Depending On Project Base)

Customizing for your specific needs, VTT-1000 supports a diverse array of popular navigation softwares on the market, such as Lingtu for China.

Lingtu With map of China

City Bus Management Case Study

Background

Established in 1984, a Taiwan-based system integrator is specialized in transportation systems including bus, train, metro, and airline systems. Due to advancements in technology and the implementation of Intelligent Transportation Systems in developed countries, the Taipei City government is encouraging passenger bus companies to integrate bus information system into its operations.

Challenge

As a total solution provider, the system integrator, in cooperation with a major passenger bus company in Taipei, were looking for an in-vehicle device that will serve as a tracking and reporting system for buses. It was necessary for the device to perform GPS location and send this information to the back office in real time. At the same time, the back office system updates location information immediately on websites, smartphone apps, and passenger signages at bus stops.

Solution

The VTT-1000 3.5” vehicle tracking terminal is integrated with an extremely sensitive GPS module, which allows it to determine location quickly. Location information is updated on the passenger information system in real time, allowing citizens to know the real-time location and the arrival time of buses at each station.

Benefits

- Meets specific transportation certifications such as e-Mark and ISO7637, which ensure reliability.
- Built-in GPS module for sensitive tracking and location.
- Built-in GPRS transfers location information to the back office so that the passenger information system can be updated in real time.

VTT-1000WiFi

Vehicle Tracking Terminal

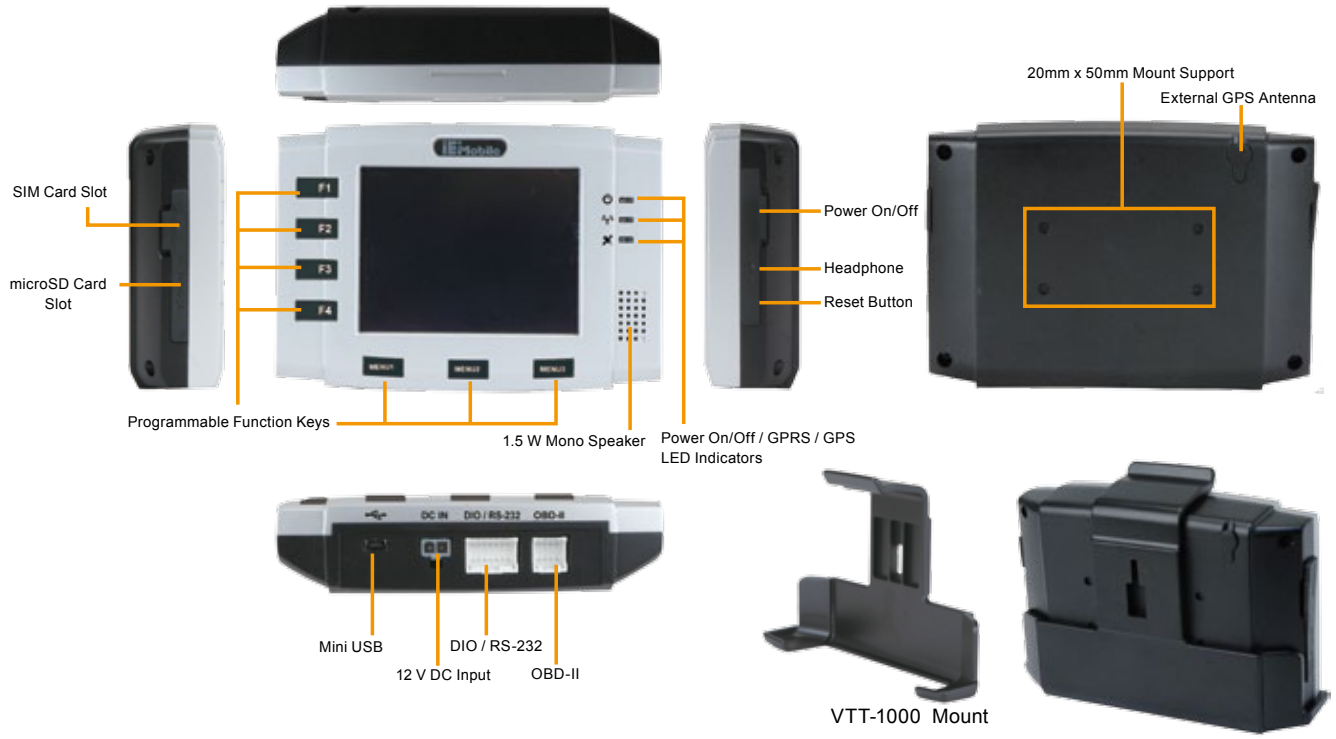
- 3.5” TFT LCD touch screen
- Embedded with ARM9 400MHz CPU
- Pre-installed Windows® CE 6.0
- Built-in GSM/GPRS and Wi-Fi
- SiRF Star III 20-channel GPS receiver

Fanless | Touchscreen | OBD-II | GPS | GPRS | microSD | ARM POWERED | Windows CE.net

Flexible Applications

The VTT-1000-wifi serves as a vehicle terminal that provides users with highly expandable options, allowing for a wide range of fleet management applications. It features a built-in Wi-Fi antenna that can access wireless network in surroundings. Vehicles with built-in wireless modems can greatly benefit from the VTT-1000-wifi.

- Fleet Management System
- In-Vehicle Infotainment
- Location-Based Services
- Emergency and Security Services



Specifications

Model		VTT-1000	VTT-1000-WiFi
Display	LCD Size	3.5" TFT-LCD	
	Brightness (cd/m²)	450 cd/m²	
	Max. Resolution	320 x 240 pixels QVGA	
	Viewing Angle	50/55/60/60 Deg.	
	Touch Screen	4-wire Resistive Type Touch	
System	CPU	Samsung S3C2416 ARM9 400 MHz	
	Operating System	Microsoft® Windows® CE 6.0	
	Memory	On-board 128MB DDR2 133MHz	
	Storage	256MB NAND FLASH microSD Card Slot	
Communication	Modem	GSM/GPRS	
	GPS	GPS w/ External Antenna	
	Wi-Fi	N/A	802.11b/g
Multimedia	Audio	1 x Line-out, 1 x 1.5W Speaker	
LED Indicators & Buttons	Indicators	Power/GPS/2.5G Status LED	
	Hot Keys	7 x Programmable Keys , Power Button, Reset Button	
I/O Interface	USB	1 x Mini USB 1.1	
	Serial	1 x DB-9 OBD-II, 1 x RS-232	1 x CAN-bus 2.0B
	Digital I/O	2-bit input, 2-bit output	
Power	Cigarette Lighter Power	DC 9-30V	
Environment	Operating Temperature	-20˚C to +70˚C	
	Storage Temperature	-30˚C to +80˚C	
	Humidity	5%~95%, Non-Condensing	
	Drop Survival	1M	
	Environmental Protection	IP 54 compliant front panel (water, dust and splash resistant)	
	Certifications	CE/FCC/e-MARK/ISO7637	
Physical Characteristics	Dimensions (LxWxH) (mm)	128 x 89 x 32	
	Net Weight	0.17kg	

Optional Accessory List

Item	Part Number	Description
Bracket	VTT-1000-MT01-R10	VTT-1000 Mounting Kit
AC Adapter	IVIPOWER-2PIN-R10	Power Adapter 63000-FSP040DGAA1107-RS + Switching Cable 32002-005000-100-RS

Model Variations

Part No.	WiFi	Modem	GPS	OBD-II	CAN-bus 2.0
VTT-1000-T35A/128MB-00-R10	NA	GSM/GPRS	Yes	Yes	NA
VTT-1000-WiFi-R10	Yes	GSM/GPRS	Yes	NA	Yes

Packing List

Item	Part Number	Q'ty
DIO and RS-232 Cable	32016-000300-100-RS	1
OBD-II Cable	32016-000400-100-RS	1
GPS Antenna	32502-000200-100-RS	1
Cigarette Lighter Power Cable	32002-004600-100-RS	1
Uesr's Manual CD-ROM	7B000-000569-RS	1

Ordering Information

Part Number	Description
VTT-1000-T35A/128MB-00-R10	3.5" 450cd/m² QVGA Fanless Vehicle Computer with ARM S3C2416X40-Y640 400MHz CPU, 128MB SDRAM, GSM/GPRS, OBD-II, GPS, without AC Adapter, RoHS
VTT-1000-WiFi-R10	3.5" 450cd/m² QVGA Fanless Vehicle Computer with ARM S3C2416X40-Y640 400MHz CPU, 128MB SDRAM, GSM/GPRS, Wi-Fi, CAN-bus 2.0B, GPS, without AC Adapter, RoHS

AVL-2000PLUS

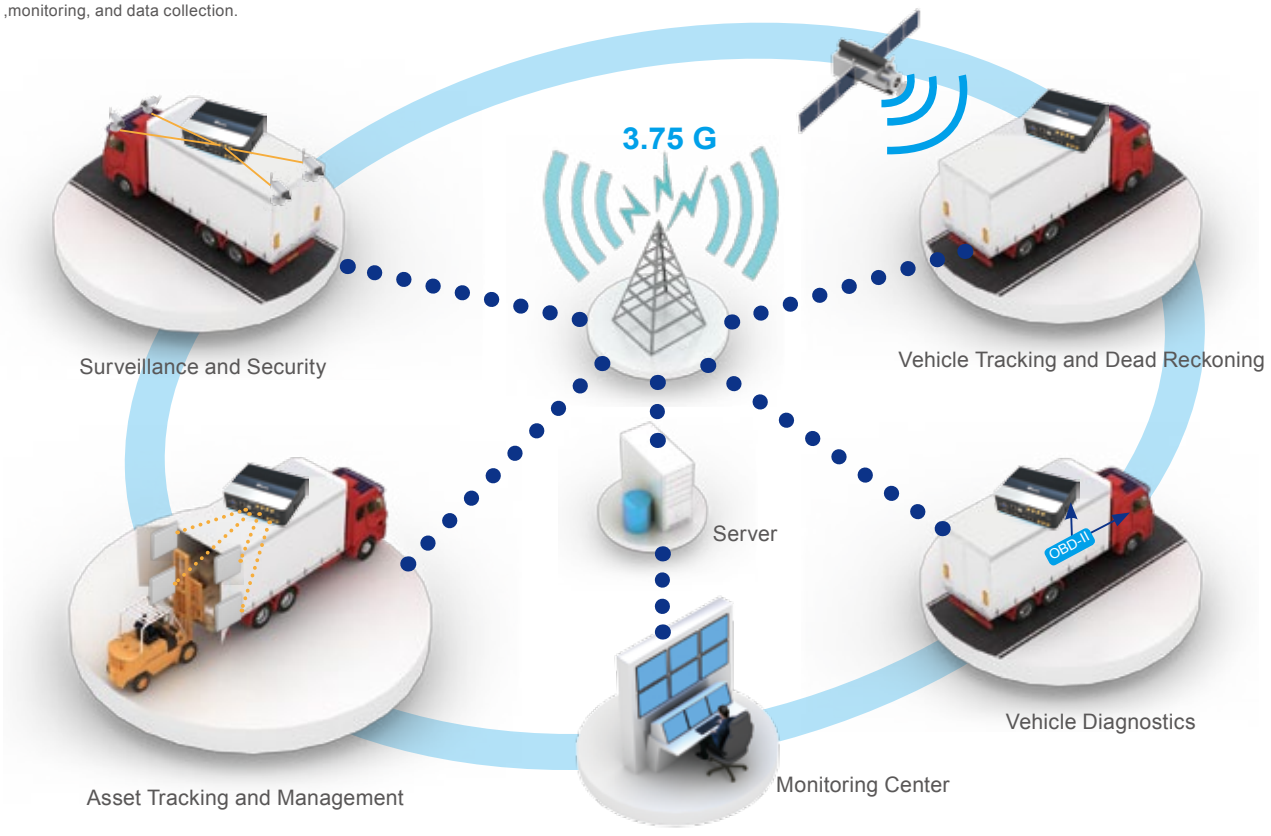
Auto Data Server

- Intel® Atom™ Z510 1.1GHz Processor
- Pre-installed Windows® XP Embedded
- Built-in HSUPA/GPRS/GSM and Wi-Fi
- Built-in GPS with Dead Reckoning Support
- Built-in VGA Port Output and NTSC/PAL/SECAM
  Video Capture NTSC: 120fps@ D1
  PAL/SECAM: 100fps@ D1 for Display
- Optional UHF RFID Reader Module
- Supports On-Board Diagnostics (OBD)

3.75G/HSUPA | Wi-Fi | GPS | Dead Reckoning | Power Management | RFID | Windows XP | Intel Intelligent Systems Alliance

Advanced Vehicle Tracking/Monitoring with Auto Data Server

The AVL-2000PLUS comes integrated with a remote on-line and real time diagnostic system for vehicles via HSUPA/GPRS/GSM, Global Position System(GPS) and On-Board Diagnostic System(OBD) technologies. The compact design of the AVL-2000PLUS makes it easy to track goods or vehicles at any location and at anytime. The AVL-2000PLUS also provides video/audio capture and recording functions. Optional functions include UHF RFID readers for a wide range of industrial and commercial applications, including supply chain management, asset tracking, authentication and access control. These complete advanced functions make an Auto Data Server suitable for accurate vehicle tracking, security ,monitoring, and data collection.

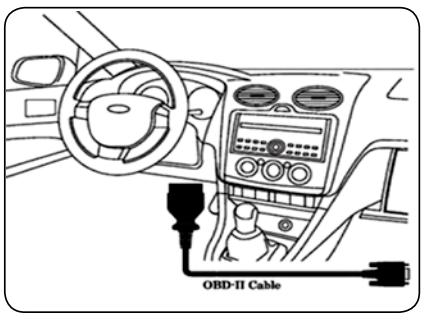


Built-in Global Positioning System (GPS) with Dead Reckoning Support

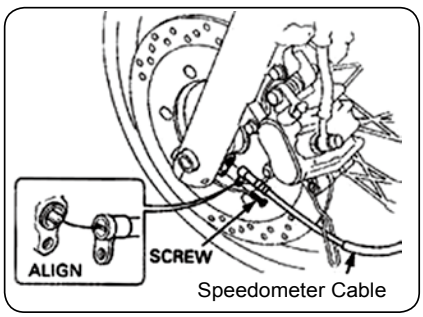
Dead-Reckoning (DR) is a new feature implemented in some high-end automotive navigation systems in order to compensate for the limitations of GPS technology. The solution ensures uninterrupted navigation and tracking when satellite signals are blocked or unavailable, such as near tall buildings, mountains, canyons, in tunnels or in underground parking. With Dead Reckoning, the AVL-2000PLUS can still provide continuous position reporting even during GPS satellite blockage.

NO GPS reception | Poor GPS reception | Good GPS reception

A built-in gyroscope is used to measure angular velocity. It provides highly accurate results when measuring an angular turn in any direction. The OBD-II, on the other hand, can accurately measure the speed of the vehicle. By combining gyroscopes with OBD-II, the AVL-2000PLUS is able to perform non-stop calculation of the dead reckoning position, orientation, and velocity (direction and speed of movement) of a moving object without any external references. It also eliminates the trouble and cost of a traditional speedometer cable installation. The AVL-2000PLUS is an ideal choice to enhance GPS performance and improve overall tracking ability.



Simple "Plug-and-Play"
AVL-2000PLUS uses standard OBD-II interface plug, allowing quick and easy access to cruise data.



Hard to Install
Traditional data retrieval via wired speedometer is cumbersome and time-consuming.

PC-Style Peripherals

●3-in-1 RS-232/422/485 serial interface

The AVL-2000PLUS is an ideal choice for connecting RS-232/422/485 serial devices to an Ethernet network, making it possible for software to access serial devices anywhere on a local network.

●Full speed USB 2.0 host

Supports connection to USB devices such as standard HIDs (Human Interface Device) like keyboard and mouse, USB storage, USB card reader, or proprietary USB devices.

●10/100/1000 Mbps Ethernet LAN

Wherever Ethernet LAN is available, the AVL-2000PLUS LAN port provides another faster and more efficient networking option.

Extended Connectivity

■ Multi-Channel Real Time Video and Audio Capture Applications

Real-time video surveillance became easy for the AVL-2000PLUS. With multi-channel real time video and audio capture capabilities, it's designed to meet the requirements of modern security systems, especially in the transportation industry. It reduces loss and damage to goods and assets and increases the safety of the drivers. The AVL-2000PLUS SDK contains a library of four active channels video demo program, allowing quick and easy customization of audio/video preview and capture applications.

Key Features

- Internal 4-channel video decoder and audio ADC
- High quality proprietary fast video locking system for non-real-time application
- Supports 4-channel D1 video plus 1-channel audio simultaneously with independent channel control
- Dynamic synchronization: video processing; multiple video format output support: Y422, Y420, IYUI/Y411, Y41P, RGB555 and RGB565
- Dual support for Direct Show and Direct Draw
- Accepts all NTSC(M/N/4.43) / PAL (B/D/G/H/I/ K/L/M/N/60) / SECAM standards with auto detection

Garbage Truck Management Case Study

Background

A French multinational company in the business of environmental services provides waste treatment and recycling solutions to more than 70 countries worldwide. With more than 40 years experience in Australia, the company is well practiced in its community waste and recycling management.

Challenge

The environmental service giant wanted to improve its service quality and customer satisfaction in the Australian region. In order to do this, the company needed to optimize its community garbage collection system. Previously, garbage tanks were collected 3 times a week on specified hours by the garbage trucks. However, these actions are often not monitored properly, which resulted in missed or delayed collections.

To better monitor its garbage truck drivers and make sure their job is done properly, the company decided to make use of the latest RFID technology and attach a UHF RFID tag onto each garbage tank. The purpose of this is to allow the tag to be read once the garbage truck comes for collection.

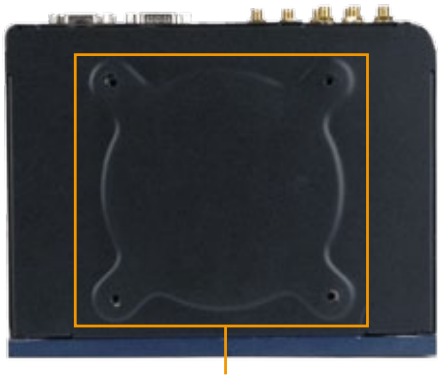
Solution

The AVL-2000 in vehicle platform definitely satisfied the strict monitoring application requirements of the company.

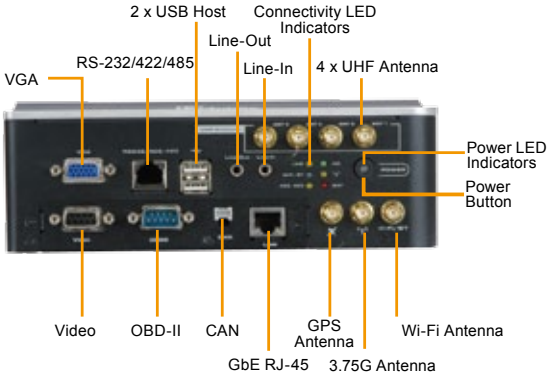
Integrated with a UHF RFID module, the AVL-2000 is connected to external UHF antennas, and collects information from the tags. This information together with a time stamp of the collection is obtained and transferred to the back office through 3G wireless. In addition to RFID applications, the built-in GPS function also acts as a tracker for vehicles on the road.

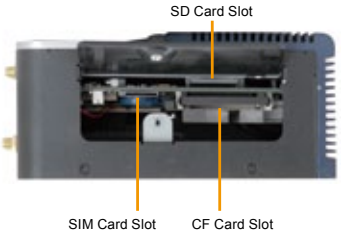
Benefits

- Meets specific transportation certifications such as e-Mark and ISO7637, which ensure reliability.
- Built-in GPS module for sensitive tracking and location.
- Built-in 3G enables information to be transferred to the back office.
- Built-in UHF RFID reader module for identification of UHF RFID tags.


DIN Rail 100 Mount

Easy Access to CF, SD and SIM





Specifications

Model	AVL-2000PLUS	
System	CPU	Intel® Atom™ Z510 1.1 GHz
	Chipset	Intel® US15WP
	Operating System	Microsoft® Windows® XP Embedded
	Memory	On-board 1 GB DDR2 533 MHz
	Storage	4GB CompactFlash® SD Card Slot
Communication	Wireless LAN	Wi-Fi 802.11b/g/n
	Bluetooth	N/A
	Modem	WCDMA/HSUPA
	GPS	GPS
Multimedia	Audio	1 x Line-in 1 x Line-out
Data Collection	RFID	Read-Write Capable ISO18000-6C UHF module (optional)
	Video Capturing	Video Input: 4-channel composite video (NTSC/PAL/SECAM) Frame rate: 4-channel with 120fps@D1 per channel (NTSC), 4 channels with 100fps@D1 per channel (PAL/SECAM)
LED Indicators & Buttons	Indicators	UHF/Wi-Fi/ RS-422/485/HDD/3.75G/BAT/Power Status LED
	Buttons	Power Button
I/O Interface	USB	2 x USB 2.0
	Serial	1 x DB-9 OBD-II 1 x RJ-45 RS-232/422/485
	LAN	1 x 10/100/1000 Mbps GbE RJ-45
	VGA	1 x VGA
	CAN	1 x CAN 2.0b
	Digital I/O	4 Inputs / 4 Outputs
Power	Cigarette Lighter Power	Cigarette Lighter Power Cable, DC 9~30V
	ACC Power	Manual power mode and ignition detection supported ACC power on/off mode with software configurable delay time
Environment	Operating Temperature	-20˚C to +70˚C
	Storage Temperature	-30˚C to +80˚C
	Humidity	5%~95%, non-condensing
	Certification	CE/FCC/e-Mark/ISO7637
Physical Characteristics	Dimensions (LxWxH) (mm)	200 x 155 x 70
	Net Weight	1.9kg

Ordering Information

Part Number	Description
AVL-2000P-510/HU-R11	Vehicle PC Box with Intel® Atom™ Z510 1.1GHz CPU, 1GB SDRAM, 802.11b/g/n Wireless, HSUPA, 4CH 120 FPS Video Capture, OBD-II, GPS with DR, RoHS
AVL-2000P-510/HU/FCC-R11	Vehicle PC Box with Intel® Atom™ Z510 1.1GHz CPU, 1GB SDRAM, 802.11b/g/n Wireless, HSUPA, 4CH 120 FPS Video Capture, OBD-II, GPS with DR, UHF FCC, RoHS
AVL-2000P-510/HU/ESTI-R11	Vehicle PC Box with Intel® Atom™ Z510 1.1GHz CPU, 1GB SDRAM, 802.11b/g/n Wireless, HSUPA, 4CH 120 FPS Video Capture, OBD-II, GPS with DR, UHF ETSI, RoHS

Support Function

Part Number	Wireless	Video Capture	GPS	3.75G	UHF RFID
AVL-2000P-510/HU-R11	802.11b/g/n	4CH 120 FPS	U-blox	Qualcomm	None
AVL-2000P-510/HU-R11/FCC	802.11b/g/n	4CH 120 FPS	U-blox	Qualcomm	UHF FCC
AVL-2000P-510/HU-R11/ETSI	802.11b/g/n	4CH 120 FPS	U-blox	Qualcomm	UHF ETSI

Packing List

Item	Part Number	Q'ty
Cigarette Lighter Power Cable	32002-001800-100-RS	1
ACC Power Cable	32002-001900-100-RS	1
RS-232 Cable	32005-000200-200-RS	1
Capture Cable	32007-001400-100-RS	1
OBD-II Cable	32025-000300-100-RS	1
J1939 Cable	32025-000400-100-RS	1
Wi-Fi/BT Antenna	32505-000400-100-RS	1
GPS / 3.75G Integrate Antenna	32506-000100-100-RS	1
User Manual CD-ROM	7B000-000568-RS	1
IEI One Key Recovery CD	IEI-7B000-000478-RS	1

ACC Power Cable

Capture Cable

J1939 Cable

OBD-II Cable

Cigarette Lighter Power Cable

GPS / 3.75G Integrate Antenna

RS-232 Cable

Wi-Fi Antenna

Power Adapter

UHF RFID Cable

UHF RFID Antenna

Optional Accessory List

Item	Part Number	Description
UHF RFID Antenna w/Cable	AVL-2000PLUS-FCC01-R10	PATCH Antenna 915MHz
		RFID Cable 10000MM
	AVL-2000PLUS-ETSI01-R10	PATCH Antenna 867.5MHz
		RFID CABLE 10000MM
Power Adapter	IVIPOWER-4PIN-R10	POWER ADAPTER; 63000-FSP040DGAA1107-RS + Switching Cable 32002-005100-100-RS

AVL-3000

Advanced Auto Data Server

- Intel® Atom™ N2600 1.6GHz CPU
- Powered by Windows® Embedded Standard 7 E (WES7E)
- Built-in 2.5” 16 GB SATA SSD
- Built-in Wi-Fi, Bluetooth, HSUPA, and GPS
- Built-in VGA Output and NTSC/PAL/SECAM Video Capture
- Supports On-Board Diagnostics (OBD)
- Optional Dual SIM
- Optional UHF RFID reader module

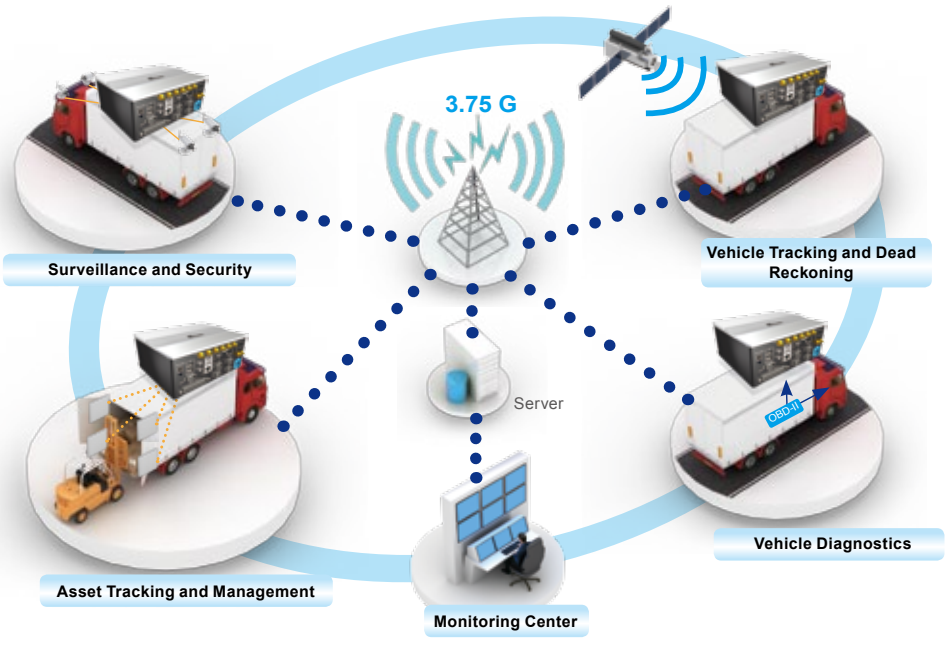
3.75G/HSUPA | Wi-Fi | Bluetooth | GPS | Power Management | Video Capture | UHF

Advanced Auto Data Server with Upgraded Tracking and Surveillance Function

The AVL-3000 comes integrated with a remote on-line and real time diagnostic system for vehicles via HSUPA/GPRS/GSM, Global Position System (GPS) and On-Board Diagnostics System (OBD) technologies.

The AVL-3000 provides video/audio capture and recording functions. With the codec solution, the AVL-3000 offers enhanced data streaming performance. Optional functions include UHF RFID Readers for a wide range of industrial and commercial applications, including supply chain management, asset tracking, authentication and access control. These complete advanced functions make an Auto Data Server suitable for accurate vehicle tracking, security, monitoring, and data collection.

	AVL-2000	AVL-3000
CPU	eMenlow	Cedarview
	Z510 1.1 GHz	N2800 (optional) N2600
OS	Windows® XP Embedded	Windows® 7 Embedded
Memory	DDR2 533MHz (2 GB max.)	DDR3 1066MHz



Extended Connectivity

Multi-Channel Real Time Video and Audio Capture Applications

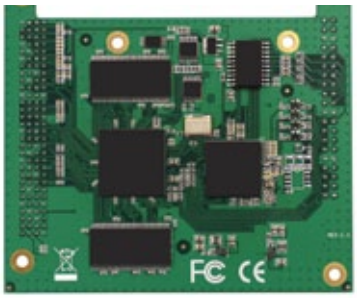
The AVL-3000, featuring multi-channel real time video and audio capture capabilities, is desinged to meet the requirements of modern security systems in the transportation industry. It can reduce loss and damage to goods and assets while increasing the safety of drivers at the same time. The AVL-3000 SDK contains a library of four active channels video demo program, allowing quick and easy customization of audio/video preview and capture applications.

Key Features

- Internal 4-channel video decoder and audio ADC
- High quality proprietary fast video locking system for non-real-time application
- Supports 4-channel D1 video plus 1-channel audio simultaneously with independent channel control
- Dynamic synchronization: video processing; multiple video format output supports Y422, Y420, IYUI/Y411, Y41P, RGB555 and RGB565
- Dual support for Direct Show and Direct Draw
- Accepts all NTSC(M/N/4.43) / PAL(B/D/G/H/I/ K/L/M/N/60) / SECAM standards with auto detection

Hardware Compression Card

The hardware compression card is a specialized hardware that can process video and audio information and enable the system to run smoothly at the same time. It decreases loading on the CPU and offers a stable solution for high-end vehicle tracking and monitoring applications.



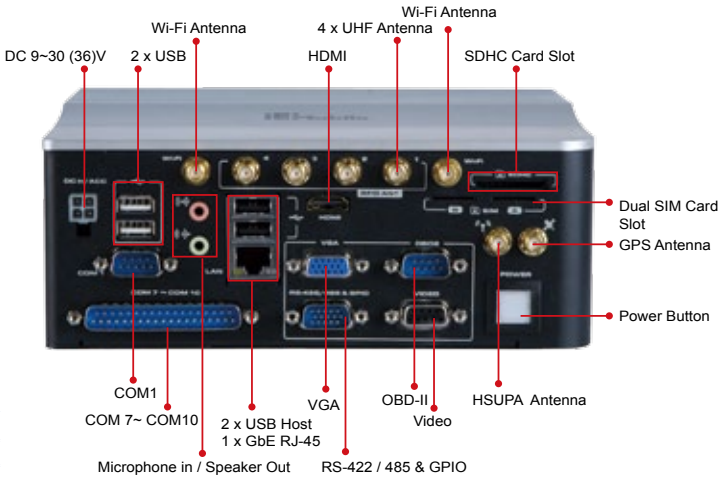
Interface	PCI-104	
Video Input	4 x pin	
Display Video Resolution	NTSC 352 x 240 @30fps	PAL 352 x 288 @25fps
Recording Video Format	H.264 Baseline Profile	
Recording Video Resolution	NTSC 720 x 480 @30fps (Max.)	PAL 720 x 576 @25fps (Max.)

UHF RFID Readers

The AVL-3000 extends the benefits of UHF RFID technology to in-vehicle applications via the long range UHF RFID readers which are ISO 18000-6C standard complaint and suitable for industrial warehouse management. It can be used in any harsh environment or temperature. It also supports error-free read performance in vehicles. The non line-of-sight tag reading is effectively used in item level identification, warehouse logistics, and security access management. The AVL-3000 SDK contains libraries to read, write, lock and kill RFID tags, which can be easily integrated into software applications.

Key Features

- High gain, high performance
- Easy installation
- UV resistance
- IP 65 waterproof and dustproof
- Pole mount & wall mount available



Specifications

Model		AVL-3000
System	CPU	Intel® Atom™ N2600 1.6GHz processor
	Chipset	Intel® NM10
	Operating System	Windows® Embedded Standard 7 E (WES7E)
	Memory	2GB 800 MHz DDR3
	Storagy	1 x Built-in 16GB 2.5" SATA SSD
		1 x SDXC Slot for data storage
Communication	Wireless LAN	802.11b/g/n
	Bluetooth	Bluetooth V2.0+EDR (class I)
	3.75G	HSUPA/UMTS-800/850/900/1900/2100 MHz
		Quad-band EDGE/GPRS
		GSM-850/900/1800/1900 MHz
		Dual-band EV-DO/CDMA
	GPS	GPS
		Supports single module dual SIM
Data Collection	RFID	Read-Write Capable ISO18000-6C UHF module ETSI/FCC
Multimedia	Audio	1 x MIC IN 1 x Line-out
	Camera	4 x Channel camera D1 120FPS
LED Indicator		1 x Power LED
Power	Power Input	Cigarette lighter power cable DC 9~30 (36)V
	Vehicle Power	ACC Power Cable
I/O Interface		4 x USB
		1 x OBD-II
		6 x COM port: DB-9 (COM1), RS-422/485 (COM4, 4-PIN), DB-37 (COM7~COM10)
		1 x GbE RJ-45 LAN
		1 x VGA support up to 1920 x 1200
		4 x VIDEO IN
		1 x 8-bit Digital I/O (selectable by software) 4 x DI 4 x DO
		1 X RJ-11 3.5G Voice
		1 x HDMI
Environment	Operating Temperature	-20°C~70°C
	Storage Temperature	-30°C ~80°C
	Humidity	5%~95%, non-condensing
	Drop Survival	ISO 16754
	Certification	CE/FCC/e-Mark
Physical Characteristics	Dimensions (LxWxH) (mm)	200 x 150 x 76
	Weight	2kg

Ordering Information

Part No.	Description
AVL-3000-N26-R10	Vehicle PC Box with Intel® Atom™ N2600 1.6GHz CPU, WES7E OS, 2GB SDRAM, 16GB 2.5" SSD, 802.11b/g/n Wireless, HSUPA, OBD-II, GPS, RoHS
AVL-3000-N26-HC-R20	In Vehicle PC Box with Intel® Atom™ Cedarview-M N2600 1.6GHz CPU, 2GB SDRAM, GbE LAN, 802.11b/g/n Wireless, Bluetooth, Qualcomm HSUPA, GPS, OBD-II, 4CH UHF RFID, 4CH HW compression Video Capture, RoHS

Packing List

Item	Part Number	Quantity
GPS/3.75G Integrate Antenna	32506-000100-100-RS	1
Wi-Fi Antenna	32505-000400-100-RS	2
ACC Power Cable	32002-001900-100-RS	1
User Manual CD-ROM	7B000-000568-RS	1
IEI One Key Recovery CD	IEI-7B000-000478-RS	1

Optional Accessory List

Item	Part Number
Cigarette Lighter Power Cable	32002-001800-100-RS
RS-232 Cable	32005-000200-200-RS
Capture Cable	32007-001400-100-RS
OBD-II Cable	32025-000300-100-RS
J1939 Cable	32025-000400-100-RS
UHF RFID Antenna w/Cable (PATCH Antenna 915MHZ)	AVL-2000PLUS-FCC01-R10
UHF RFID Antenna w/Cable (PATCH Antenna 867.5MHZ)	AVL-2000PLUS-ETSI01-R10
Power Adapter	IVIPOWER-4PIN-R10

ACC Power Cable

Wi-Fi Antenna

J1939 Cable

Cigarette Lighter Power Cable

Power Adapter

GPS / 3.75G Integrate Antenna

Capture Cable

OBD-II Cable

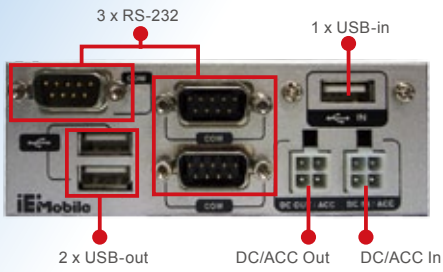
RS-232 Cable

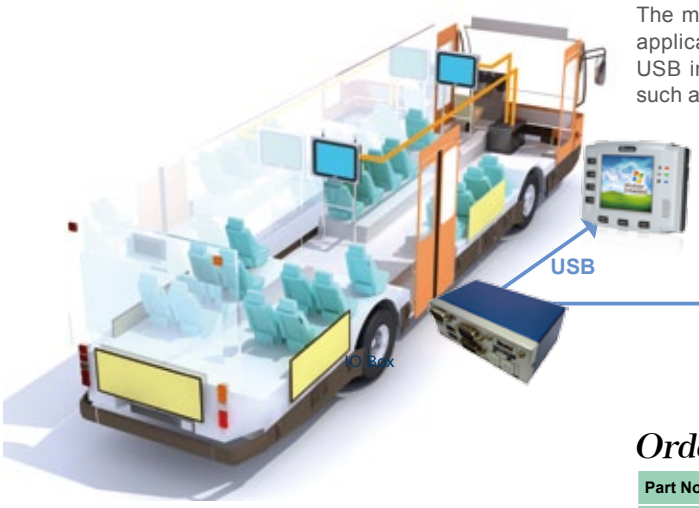
UHF RFID Cable

UHF RFID Antenna

IO Box New

- 3 x RS-232
- 2 x USB output
- 1 x USB input





The multi-purpose IO Box is designed for the in-vehicle series, to expand application possibilities. The IO Box offers additional RS-232 ports, and USB input and output ports. It can be connected to an in-vehicle device such as the iKarPC series, VTT-1000, and AVL series.

Ordering Information

Part No.	Description
VTT-1000-IO-R10	IO expansion box with three RS-232, two USB output and one USB input

OBDII Box New

- Vehicle On-Board Diagnostics
- Supports OBD-II protocol
- Through USB to a car PC

The OBDII Box is designed as an optional accessory that can be connected to a system (such as the IEIMobile in-vehicle series) through USB and access diagnostic information from vehicles. It supports OBD-II protocol.

Ordering Information

Part No.	Description
VTT-1000-OBDII-USB-R10	Box with OBD-II protocol support

RISC Based PC

RISC Based PC

The World of Smart Living and Automation

IEIMobile's RISC Based PC (Input and Output Viewer) series enables the great embedded flexibility for smart living and automation applications. Built with a XScale or Alchemy CPU, LCD display, touch screen, I/O peripherals, and pre-installed Windows® CE 5.0 , CE 6.0, or embedded Linux, the IOVU series provides the most cost-effective and stable solution for a diverse range of embedded PC applications. The supported software includes thin client technology, remote management tool, embedded OS SDK (software development kit) and BSP (board support package).

►►Equipped with RISC CPU and Windows® CE embedded OS, the RISC Based PC series offers high-performance computing power, fan-less design, low-power consumption, wide operating temperature, and wide-input-voltage range.

►►The RISC Based PC series is designed for high durability in harsh environments, due to its rugged, compact, low power consumption, and embedded system hardware design without failure-prone hard disk and fan. Each is equipped with an IP 65 or IP 64 compliant front panel to protect against accidental contacts of foreign bodies and against water.

►►Each RISC Based PC is driven by an powerful RISC CPU with built-in WDT (Watchdog Timer) functions, has a touch screen TFT display, and comes with a series of integrated external peripheral connectors including Ethernet ports, serial ports, USB ports, audio ports, SD card slot, and optional wireless communication modules supporting Wi-Fi 802.11b/g, Bluetooth, GPS, or GSM/GPRS.

Applications and Mounting Options

The RISC Based PC series (IOVU-430M excluded) utilizes the 75x75 VESA mount standard, allowing for a wide range of mounting options in various industry applications.

Wall Mount

Panel Mount

75 x 75 VESA Mount

Arm Mount

Gaming

Vehicle PC

Industrial Automation

Home/Building Automation

Multimedia / Digital Signage

IOVU Intelligent Panel PC

The RISC Based PC series enables the great embedded flexibility for smart living and automation applications. Built-in XScale or Alchemy CPU, LCD display, touch screen, I/O peripherals and pre-installed Windows® CE5.0 and Windows® CE6.0, the RISC Based PC series provides the most cost-effective and stable solution for a diverse range of embedded applications. IOVU provides an easy way to collect, transfer, process, access and manage data which is generated or inquired in various applications such as factory automation, home automation, medical, transportation management, and POS.

IOVU Open HMI series

RISC-based Solutions:
The best platform for embedded system and Panel PC

	4.3”	5.7”	7”
Model Name	IOVU-430M IOVU-430S	IOVU-570M IOVU-572M	IOVU-751R IOVU-752S
CPU	XScale® PXA270 416 MHz Samsung S3C2416 400MHz	Xscale® PXA 520 MHz Xscale® PXA 624 MHz	Alchemy AU1250 500 MHz Samsung S3C6410 ARM11 677 MHz
Memory	128MB	128MB/256MB	256MB
Feature	1. Projected- capacitor type multi touch screen 2. Built-in Wi-Fi 802.11b/g function 3. GPIO and CAN-bus control	1. Compact form factor 2. Built-in Wi-Fi 802.11b/g function	1. PoE available 2. MPEG 1/2/4 support

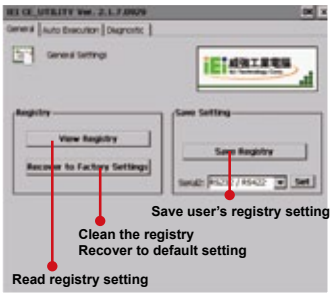
Software Support

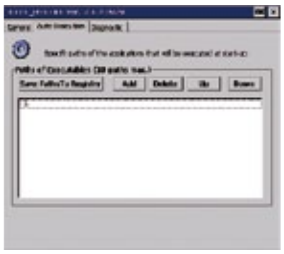
SDK (Software Development Kit)

- Included Software Development Kit (SDK) for embedded Visual C++ to program Windows® CE application.
- Built-in .NET Compact Framework support with related SDK.
- Thin Client Technology, Microsoft RDP (Remote Desktop Protocol), to enable the RISC Based PC series to access Microsoft Windows® based applications installed on Microsoft® Terminal Service server.
- The SDK includes GUI, sample code, and tool chain for users to build the custom application easily.

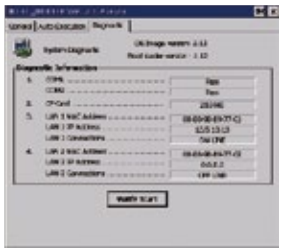
IEI WinCE Utility

Free pre-installed utilities for configuring and diagnosing your RISC Based PC series panel PC





Easy to set programs for auto execution



Quickly verify peripheral function and check OS / Boot_loader version

RMT (Remote Management Tool)

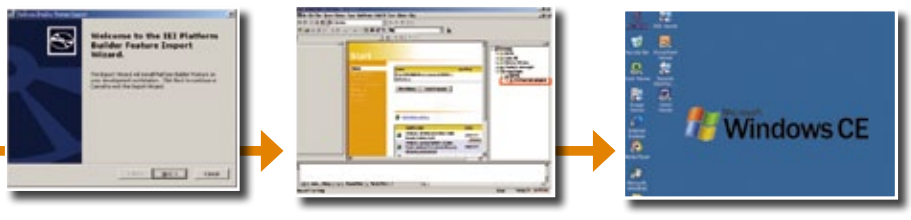
Free pre-installed utilities for configuring and diagnosing your IOVU series panel PC

BSP (Board Support Package)

Windows® CE5.0 and CE6.0

- Standard Windows® CE5.0 and CE6.0 professional version license.
- Optional Board Support Package (BSP) for customers to customize their own OS image.

Windows® Platform Builder



Customization WinCE

RISC Based PC

Model Name		IOVU-430M	IOVU-430S	IOVU-570M	IOVU-572M	IOVU-751R	IOVU-752S
System	CPU	XScale® PXA270 416 MHz	Samsung S3C2416 400 MHz	XScale® PXA270 520 MHz	XScale® PXA310 624 MHz	Alchemy™ AU1250 500 MHz	Samsung S3C6410 ARM11 677 MHz
	Operating System	Win CE 5.0	Win CE 6.0	Win CE 5.0	Win CE 6.0	Win CE 5.0	Win CE 6.0
	Bootloader Storage	2 MB	128MB	2 MB	128 MB	2 MB	128 MB
	RAM	128 MB SDRAM	128 MB SDRAM	128 MB SDRAM	256 MB DDR2	256 MB DDR2	256 MB DDR2
	Program Storage Area	1GB miniSD card	Bootloader Storage	1GB SD card	Bootloader Storage	1GB SD card	Bootloader Storage
Display	LCD Size	4.3"	4.3"	5.7"	5.7"	7"	7"
	LCD Color	262 K	262 K	262 K	262 K	262 K	262 K
	Display Resolution	WQVGA	WQVGA	VGA	VGA	WVGA	WVGA
	LCD Brightness (cd/m^2)	500	500	400	400	500	500
	Dot Pitch (mm)	0.066(H) x 0.198(V)	0.066(H) x 0.198(V)	0.06(H) x 0.18(V)	0.06(H) x 0.18(V)	0.064(H) x 0.191(V)	0.1905(H) x 0.1905(V)
	Viewing Angle (H-V)	140 / 110	140 / 120	140 / 100	140 / 100	140 / 100	140 / 130
	Backlight MTBF	10000	20000	50000	50000	50000	50000
	Touch Screen	1. Projective capacitive Type 2. Resistive Type	ResistiveType	Resistive Type	Resistive Type	Resistive Type	Resistive Type
	Multimedia Support	MPEG 1	MPEG-1/2/4/H.263	MPEG 1	MPEG 1	MPEG 1/2/4 and WMV9	MPEG-4/H.263/H.264
I/O and Communication	I/O Interface	1 x RS-232/422/485 (software configurable) 1 x Reset button 1 x 10/100Mbps LAN 1 x USB 1.1 host 1 x CAN-bus 2.0b 6 x GPIO (voltage range 2.97V~3.63V) 1 x 2-pin terminal block DC input 1 x miniSD card slot	1 x RS-232/422/485 COM port (software configurable) 1 x Reset button 1 x 10/100Mbps LAN 1 x USB 1.1 host 1 x CAN-bus 2.0b 6 x GPIO (voltage range 2.97V~3.63V) 1 x 2-pin terminal block DC input 1 x miniSD card slot	1 x RS-232/422/485 (software configurable) 2 x 10/100Mbps LAN 2 x USB 1.1 host 1 x SD card slot 1 x Reset button 1 x AT mode power switch 1 x 2-pin terminal block DC input	1 x RS-232/422/485 (software configurable) 2 x 10/100Mbps LAN 2 x USB 1.1 host 1 x SD card slot 1 x Reset button 1 x AT mode power switch 1 x 2-pin terminal block DC input	1 x 4-wired RS-232/422/485 (software configurable) 1 x RS-232 2 x 10/100Mbps LAN (one supports PoE) 2 x USB 2.0 host 1 x Reset button 1 x AT mode power switch 1 x 2-pin terminal block DC input 1 x Power jack	1 x RS-232 COM port 1 x RS-232/422/485 COM port (software configurable) 1 x 10/100Mbps LAN (supports PoE) 2 x USB 2.0 host 1 x Reset button 1 x On/Off power switch 1 x Power jack
	Audio	2 x 1W speaker	2 x 1W speaker	2 x 1.5W speaker	2 x 1.5W speaker	2 x 1.5W speaker	2 x 1.5W speaker
	Wireless LAN	802.11b/g	802.11b/g	802.11b/g	802.11b/g	N/A	N/A
Dimensions	Construction Material	ABS + PC Plastic	ABS + PC Plastic	ABS + PC Plastic	ABS + PC Plastic	ABS + PC Plastic	Aluminum (Al 6061)
	Net Weight (kg)	0.6	0.6	0.7	0.7	0.8	1.2
	Front Panel Color	Black	Black	Black	Black	Black	Silver
	Dimensions (W x H x D mm)	145 x 104 x 34	145 x 104 x 34	180 x 135 x 45	180 x 135 x 46	226 x 140 x 41	188 x 124 x 40
Environmental and Power	Operating Temperature (ºC)	0ºC~50ºC	0ºC~50ºC	-20ºC~60ºC	-10°C~ 60°C	-20ºC~60ºC	-10°C~ 60°C
	Front Panel Protection	IP64 compliant	IP65 compliant	IP64 compliant	IP64 compliant	IP64 compliant	IP64 compliant
	Power Mode	AT	AT	AT	AT	AT	AT
	Power Requirement	12~36V DC input	12~36V DC input	12~36V DC input	12~36V DC input	6~30V DC input	6~30V DC input
	Power Consumption	7 W	7 W	14 W	14 W	14 W	14 W
	Vibration and Shock	1. Axes: 3 axes (Vertical / Transverse / Longitudinal) 2. 10 ~ 500Hz, 60min/axis 3. Equivalent to Z: 2.18Grms, X: 1.6Grms, Y: 1.96Grms					
	Humidity	5%-90% RH	5%-90% RH	5%-90% RH	5%-90% RH	5%-90% RH	5%-90% RH

IOVU-430M

IOVU RISC-based PPC

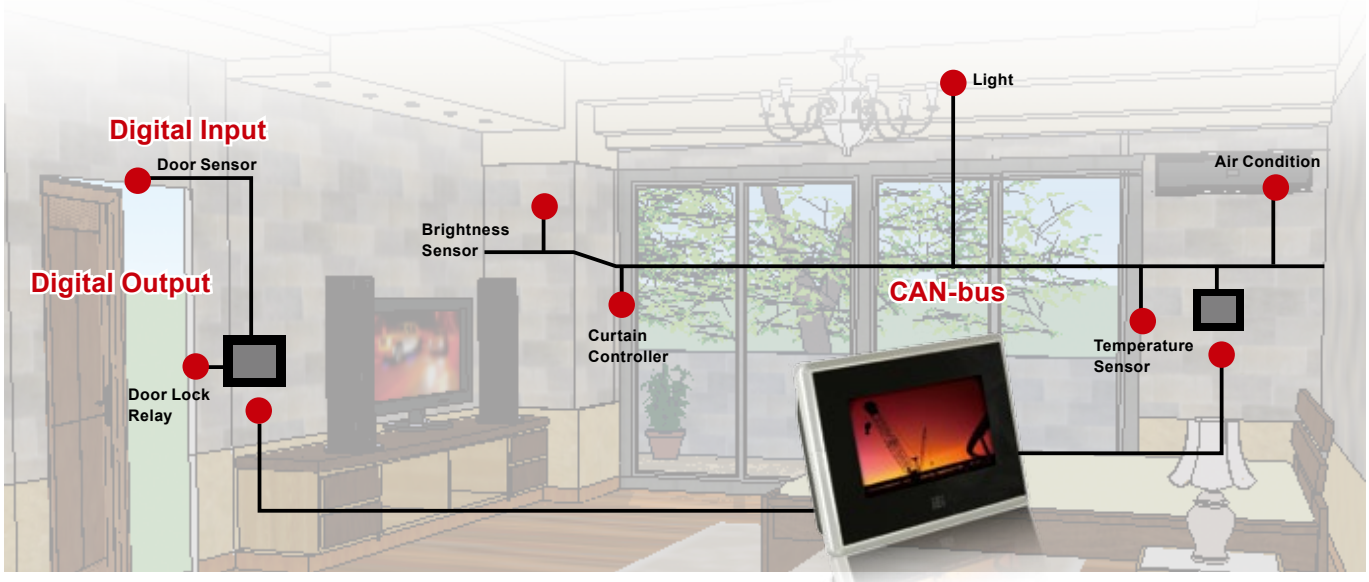
- 4.3" TFT WQVGA LCD with projective capacitive touchscreen
- XScale® PXA270 416 MHz CPU
- Powered by Windows® CE 5.0
- Built-in Ethernet LAN and optional Wi-Fi
- Built-in CAN-bus 2.0b and GPIO
- Built-in RS-232/422/485 Port

Fanless | Wi-Fi | Wide Temperature | Multi-touch | XScale® PX270 | ARM POWERED | Windows CE 5.0

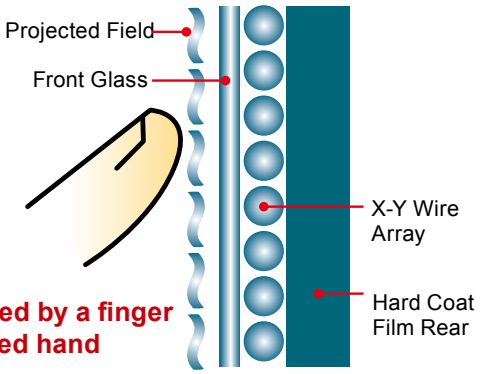
Flexible Connectivity

While touch sensor is commonplace for single points of contact, IOVU-430M's multi-touch sensor enables users to interact with the system with more than one finger at a time. IOVU-430M RISC-based system provides high performance, lower power consumption, wide operating temperature, rugged compact form factor and cost efficiency. Built-in Wi-Fi module, GPIO (General Purpose Input/Output) and CAN-bus control have varied applications be flexible.

Designed for automation applications, IOVU-430M provides various control interface choices to fit different automatic control applications. One can use GPIO (General Purpose Input & Output) in single control cases, for instance, to receive door sensor signal via digital input and send output signal to lock relay for door control. Furthermore, IOVU-430M provides CAN-bus connectivity which empowers to compose a smart network in advanced automation applications.



Projected Capacitor Multi-touch

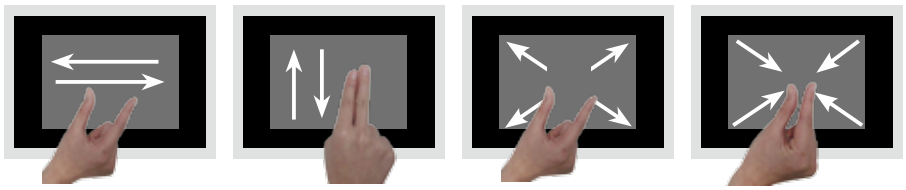


• Operation Theory

PCT is based on the principle of embedding an array of micro-fine sensing wires within a multi-layer laminated screen behind a protective front surface, ensuring that the sensing medium is well-protected from accidental and malicious damage.

• IEI IOVU-430M Multi-touch SDK

Empowered by equipping multi-touch technology, IOVU-430M provides users with a more delightful controlling experience. Compared to conventional single-touch technology, now application programmers increase user interface to more friendliness by providing intuitive gesture control methods. IEI shares software development kit and demo AP with source code to support quick software building. IEI IOVU-430M multi-touch SDK provides up to 10 gestures for user to define various users behaviors which makes operating more convenient and interesting.



Slide (Multi-touch) Left (Right) | **Slide (Multi-touch) Up (Down)** | **Zoom Out** | **Zoom In**

BSP, SDK

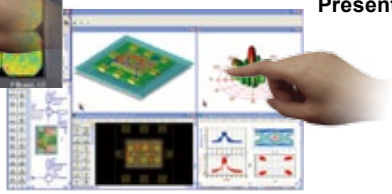
Microsoft eMbedded Visual C++ 4.0 | Microsoft .net Compact Framework | Microsoft Visual Studio

• Gesture Applications

Using a combination of gestures, users can freely rotate, zoom-in, and zoom-out, to emphasize specific photographs, graphics, or diagrams. With the ability to go back to a wider vision of an entire slide, convenience and flexibility is greatly enhanced during the communication process.

Presentation

Healthcare



e-Collaboration

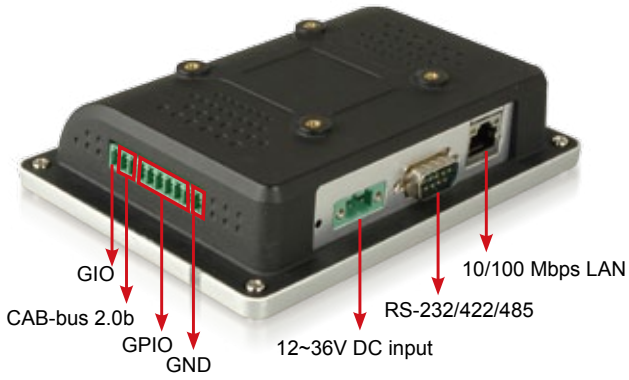
Flat Bezel Panel

The IOVU-430M full-flat surface screen makes the screen and bezel appear to blend seamlessly together. The flat-bezel design removes the front frame (bezel) of standard LCD to create a seamless surface. The IOVU-430M zero-bezel resistive/projective capacitive touch system offers aesthetic elegance, easy to clean, seamless front face.

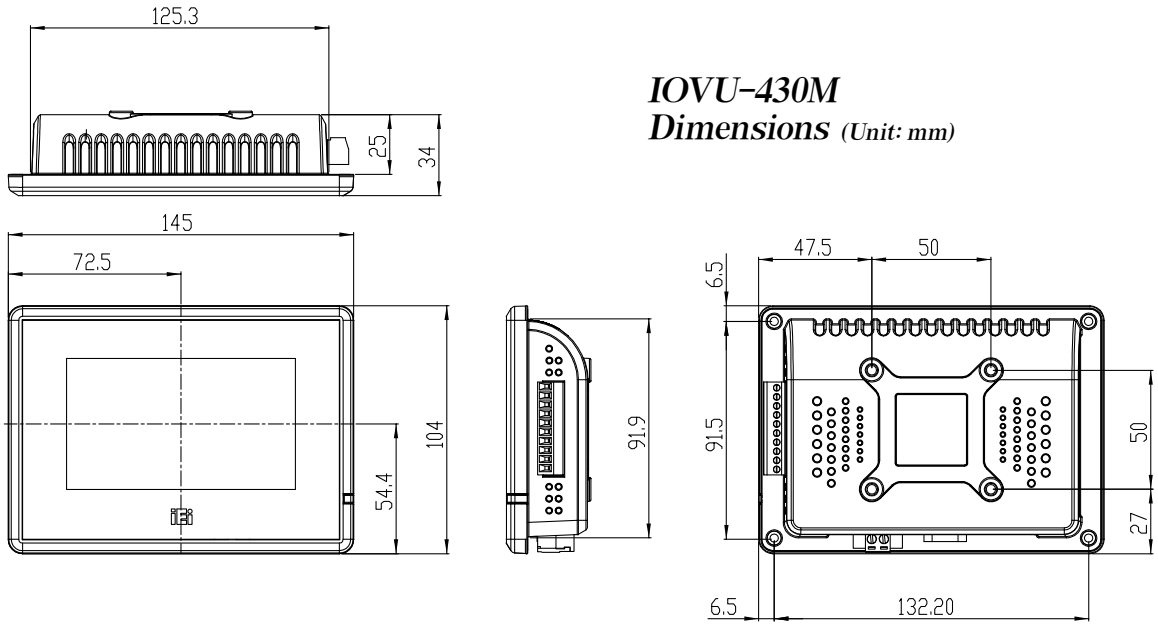
- **Better visual effects**
- **No EDGE EFFECTS**
- **Sleek, stylish luxury look without clutter**
- **Easy clean properties**

White in-wall cage

Black in-wall cage



IOVU-430M Dimensions (Unit: mm)



Ordering Information

Part No.	Description
IOVU-430M-CE5/MT/-R10	4.3" TFT, WQVGA fanless with MARVELL XScale PXA270 CPU, 128MB SDRAM, projective capacitive multi-touch panel PC with built-in Windows® CE 5.0 license
IOVU-430M-CE5/ST/-R10	4.3" TFT, WQVGA fan-less with MARVELL XScale PXA270 CPU, 128MB SDRAM, resistive type single-touth panel PC with built-in Windows® CE 5.0 license
IOVU-430M-CE5/ST/WL/-R10	4.3" XSCALE PXA270 416MHZ resistive type single-touch panel PC with 802.11b/g Wi-Fi function ,built-in Windows® CE 5.0
IOVU-430M-CE5/MT/WL/-R10	4.3" XSCALE PXA270 416MHZ resistive type multi-touch panel PC with 802.11b/g Wi-Fi function ,built-in Windows® CE 5.0

Packing List

1 x IOVU-430M
1 x Null modem cable
1 x Screw kits
1 x Utility CD includes SDK, utilities and technical document
1 x Touch pen (only for single-touch mode)

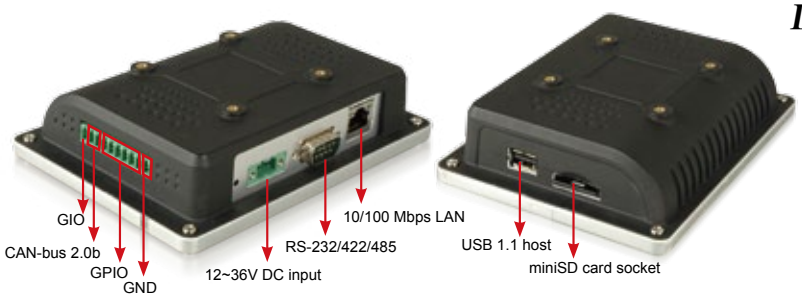
Options

Part No.	Description
63000-FSP060DBAB1555-RS	12V/5A DC 60W power adapter with bare wire, 90~264V AC input
IOVU-430M-IWC/B/-R10	In-wall cage (Black)
IOVU-430M-IWC/W/-R10	In-wall cage (White)

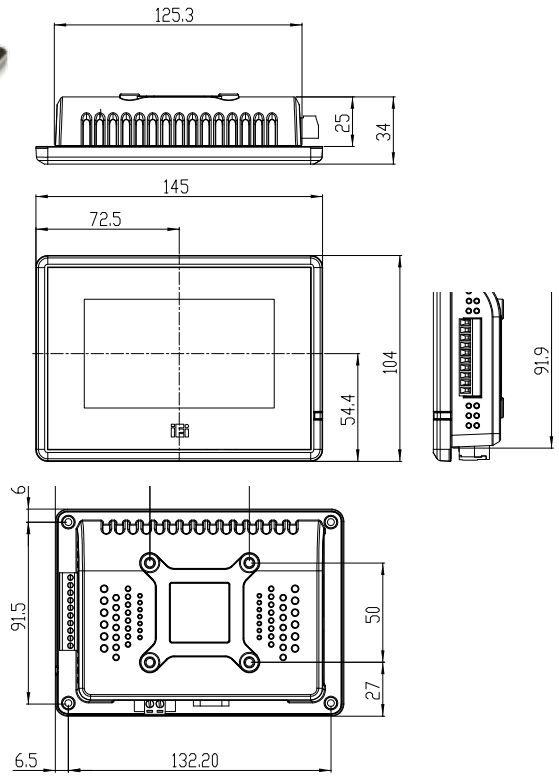
IOVU-430S New

- 4.3" TFT WQVGA LCD with resistive touchscreen
- Samsung S3C2416 400MHz CPU
- Powered by Windows® CE 6.0
- Built-in Ethernet LAN and optional Wi-Fi
- Built-in CAN-bus 2.0b and GPIO
- Built-in RS-232/422/485 Port

Fanless | Wi-Fi | Wide Temperature | Touchscreen | SAMSUNG | ARM POWERED | Windows 6.0



Dimensions (Unit: mm)



Packing List

1 x IOVU-430S
1 x Null modem cable
1 x Screw kits
1 x Utility CD includes SDK, utilities, and technical document
1 x Touch pen (only for single touch mode)

Options

Part No.	Description
63000-FSP060DBAB1555-RS	12V/5A DC 60W power adapter with bare wire, 90~264V AC input
IOVU-430M-IWC/B/-R10	In-wall cage (Black)
IOVU-430M-IWC/W/-R10	In-wall cage (White)

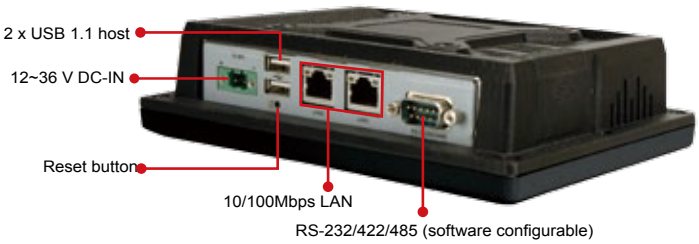
Ordering Information

Part No.	Description
IOVU-430S-CE6/ST/-R10	RISC Panel PC, 4.3" LCD, ARM S3C2416X40-Y640 400MHz CPU, 128MB SDRAM, Win CE6.0, RoHS
IOVU-430S-CE6/ST/WL/-R10	RISC Panel PC, 4.3" LCD, ARM S3C2416X40-Y640 400MHz CPU, 128MB SDRAM with 802.11b/g Wi-Fi function, Win CE6.0, RoHS

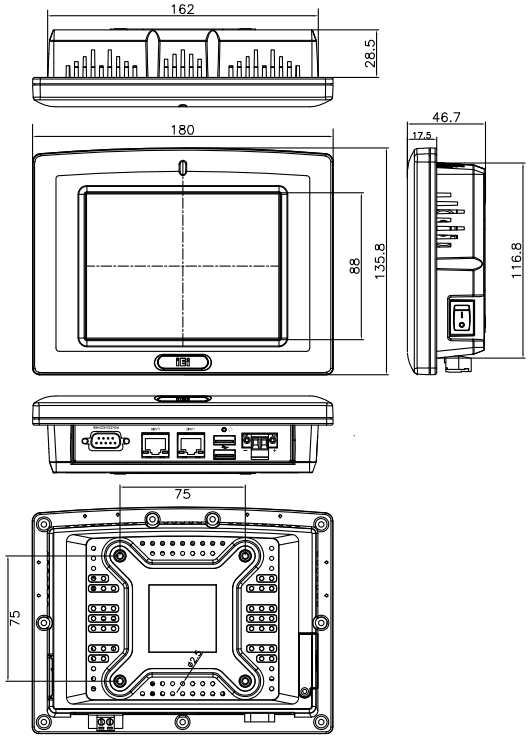
IOVU-570M

- 5.7" TFT VGA LCD with resistive touchscreen
- XScale® PXA270 520MHz CPU
- Powered by Windows® CE 5.0
- Built-in Ethernet LAN and Wi-Fi
- Built-in RS-232/422/485 Port

Fanless | Wi-Fi | Touchscreen | XScale® PX270 | ARM POWERED | Windows CE 5.0



IOVU-570M Dimensions (Unit: mm)



Packing List

1 x IOVU-570M
1 x Utility CD includes application tools, SDK, and technical document
1 x Null modem cable
1 x Touch pen

Ordering Information

Part No.	Description
IOVU-570M-CE5/-R10	5.7", VGA fanless touch panel PC with MARVELL XScale PXA270 CPU, 128MB SDRAM, 802.11b/g wireless LAN and built-in Windows® CE5.0 operating system

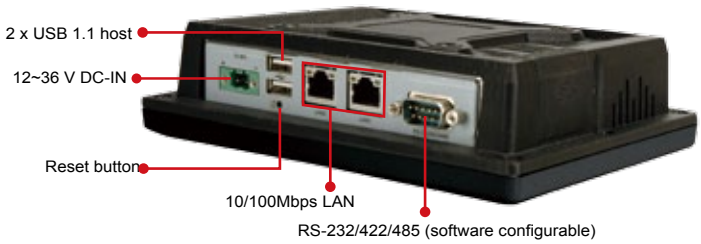
Options

Part No.	Description
AFLPK-12	Panel mounting kit
AFLWK-12	VESA 75 wall mounting kit
ARM-11-RS	LCD monitor/PPC arm kit, loading capacity from 3kg~7kg
STAND-A08-RS	LCD monitor/PPC stand kit for VESA 75 and supports up to 5 Kg
VSTAND-A07	LCD monitor/PPC stand V type for VESA 75, 0~90 degree adjustable hinge and support up to 2.5 Kg
AFLP-12BMSR-U	USB magnetic card reader
AFLP-BRW01-U / AFLPBRB01-U	USB barcode reader (white / black)
AFLP-CDB01 / AFLP-CDW01	VFD customer display (green) 5 x 7 dot matrix (black / white)
63000-FSP060DBAB1555-RS	12V/5A DC 60W power adapter with bare wire, 90~264V AC input

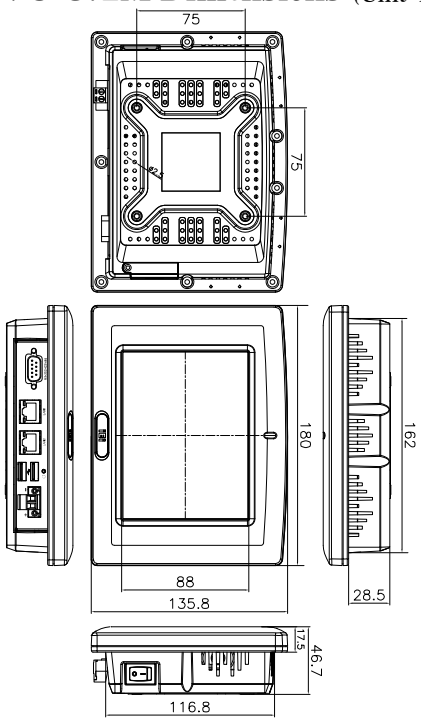
IOVU-572M New

- 5.7" TFT VGA LCD with resistive touchscreen
- XScale® PXA310 624MHz CPU
- Powered by Windows® CE 6.0
- Built-in Ethernet LAN and Wi-Fi
- Built-in RS-232/422/485 Port

Fanless | Wi-Fi | Touchscreen | Wide Temperature | XScale® PX310 | ARM POWERED | Windows CE 5.0



IOVU-572M Dimensions (Unit: mm)



Packing List

1 x Utility CD includes application tools, SDK, and technical document
1 x Null modem cable
1 x Touch pen

Ordering Information

Part No.	Description
IOVU-572M-CE6/-R10	5.7" LCD, Marvell PXA310 624MHZ, built-in Wi-Fi, WIN CE6.0, RoHS

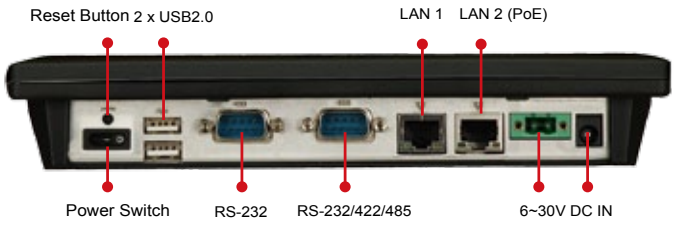
Options

Part No.	Description
AFLPK-12	Panel mounting kit
AFLWK-12	VESA 75 wall mounting kit
ARM-11-RS	LCD monitor/PPC arm kit, loading capacity from 3kg~7kg
STAND-A08-RS	LCD monitor/PPC stand kit for VESA 75 and supports up to 5 kg
VSTAND-A07	LCD monitor/PPC stand V type for VESA 75, 0~90 degree adjustable hinge and supports up to 2.5 kg
AFLP-12BMSR-U	USB magnetic card reader
AFLP-BRW01-U / AFLPBRB01-U	USB barcode reader (white / black)
AFLP-CDB01 / AFLP-CDW01	VFD customer display (green) 5 x 7 dot matrix (black / white)
63000-FSP060DBAB1555-RS	12V/5A DC 60W power adapter with bare wire, 90~264V AC input

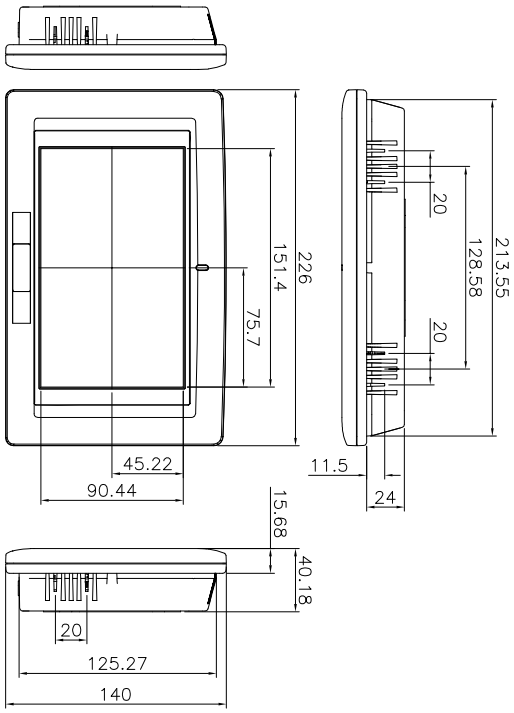
IOVU-751R

- 7" TFT WVGA LCD with resistive touchscreen
- Alchemy™ AU1250 500 MHz CPU
- Powered by Windows® CE 5.0
- Built-in Ethernet LAN
- Built-in RS-232/422/485 Port
- Supports Power over Ethernet (PoE)
- Multimedia support for MPEG 1/2/4 and WMV9

Fanless | Touchscreen | Windows CE 5.0



IOVU-751R Dimensions (Unit: mm)



Packing List

1 x IOVU-751R
1 x Utility CD includes application tools, SDK, and technical document
1 x Null modem cable
1 x Touch pen
1 x Screw kit

Ordering Information

Part No.	Description
IOVU-751R-CE5/-R10	7", WVGA fan-less touch panel PC with RMI Alchemy AU1250 CPU, 256MB DDR2 SDRAM, LAN supports PoE function and built-in Windows® CE5.0 Operating System

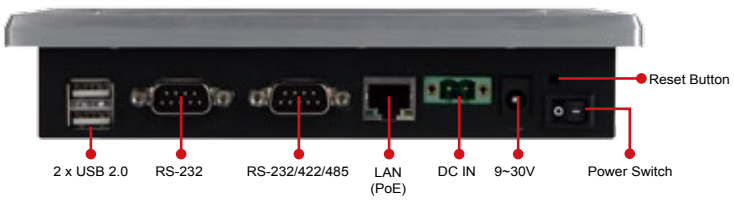
Options

Part No.	Description
AFLPK-12	Panel mount kit
AFLWK-12	VESA 75 wall mount kit
ARM-11-RS	LCD Monitor/PPC Arm kit loading capacity from 3kg~7kg
STAND-A08-RS	LCD Monitor/PPC Stand kit for VESA 75 and supports up to 5 kg
VSTAND-A07	LCD Monitor/PPC Stand V type for VESA 75, 0~90 degree adjustable hinge and support up to 2.5 kg
AFLP-12BMSR-U	USB Magnetic Card Reader
AFLP-BRW01-U / AFLPBRB01-U	USB Barcode Reader (White / Black)
AFLP-CDB01 / AFLP-CDW01	VFD Customer Display (Green) 5 x 7 dot matrix (Black / White)
63000-FSP060DBAB1553-RS	Adapter Power; FSP;FSP060-DBAB1; Active PFC; Vin:90~264VAC; 60W; Dim: 62*110*31.5mm; Plug=9.5mm; Cable=1500mm; Erp(NO LOAD 0.5W); Vout:12VDC; Φ2.5/Φ5.5; CCL; RoHS
63000-FSP060DBAB1555-RS	12V/5A DC 60W power adapter with bare wire, 90~264V AC input

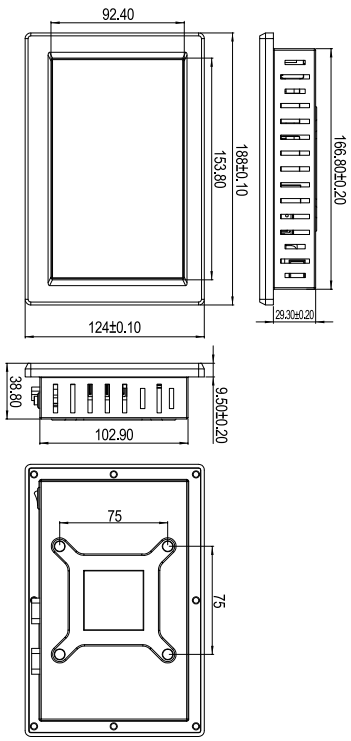
IOVU-752S New

- 7" TFT WVGA LCD with resistive touchscreen
- Samsung S3C6410 ARM11 677MHz CPU
- Powered by Windows® CE 6.0
- Built-in Ethernet LAN
- Built-in RS-232/422/485 Port
- Supports Power over Ethernet (PoE)
- Multimedia support for MPEG-4/H.263/H.264

Fanless | Touchscreen | Wide Temperature | SAMSUNG | ARM POWERED | Windows CE 6.0



IOVU-752S Dimensions (Unit: mm)



Packing List

1 x Utility CD includes application tools, SDK, and technical document
1 x Null modem cable
1 x Touch pen
1 x Screw kit

Ordering Information

Part No.	Description
IOVU-752S-CE6/-R10	7" LCD, SAMSUNG S3C6410X66-YB40 667MHz with PoE function, WIN CE6.0, RoHS

Options

Part No.	Description
AFLPK-12	Panel mounting kit
AFLWK-12	VESA 75 wall mounting kit
ARM-11-RS	LCD monitor/PPC arm kit, loading capacity from 3kg~7kg
STAND-A08-RS	LCD monitor/PPC Stand kit for VESA 75 and supports up to 5 kg
VSTAND-A07	LCD monitor/PPC Stand V type for VESA 75, 0~90 degree adjustable hinge and support up to 2.5 Kg
AFLP-12BMSR-U	USB magnetic card reader
AFLP-BRW01-U / AFLPBRB01-U	USB barcode reader (white / black)
AFLP-CDB01 / AFLP-CDW01	VFD customer display (green) 5 x 7 dot matrix (black / white)
63000-FSP060DBAB1553-RS	Power adapter; FSP; FSP060-DBAB1; active PFC; Vin: 90~264VAC; 60W; Dim: 62*110*31.5mm; plug=9.5mm; cable=1500mm; Erp (no loading 0.5W); vout:12VDC; Φ2.5/Φ5.5; CCL; RoHS
63000-FSP060DBAB1555-RS	12V/5A DC 60W power adapter with bare wire, 90~264V AC input